



November 2013

Psathyrella Notebook 2

L. R. Hesler

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Psathyrella Species

aggregata	No. 14693	No. 20292
alachuana	No. 15892	No. 20799
anaglaea	No. 15917	No. 20863
camptopoda	No. 15919	No. 20932
Candolleana	No. 16027	No. 21000
confertissima	No. 16045	No. 21319
coronata	No. 16361	No. 21320
delineata	No. 16380	No. 21323
hydrophila	No. 17027	No. 21353
hymenocephala	No. 17300	No. 21354
lauricola	No. 17725	No. 21927
madeodisca	No. 18165	No. 22250
michiganensis	No. 18895	No. 22566
piceicola	No. 18909	
Rooseveltiana	No. 18911	
rugeocephala	No. 18912	
rugoproxima	No. 18975	
sarcocephala	No. 19016	
spadiceogrisea	No. 19350	
subvolvata	No. 19375	
velutina	No. 19454	
vestita	No. 19455	
No. 3054	No. 19501	
No. 3701	No. 19616	
No. 11208	No. 19722	
No. 14212	No. 20225	

Psathyrella aggregata (Pk.) A. H. Smith

Pileus 2-5.5 cm. broad, convex, not fully expanding, at times obtusely umbonate, dry to subviscid, not hygrophanous, grayish white (color not matched), disk tinted pinkish brown to "fuscous," with scattered olive to "fuscous," fibrillose squamules, fibrils finally vinaceous, glabrescent, margin even (when dry), faintly striatulate (when wet), appendiculate.

Flesh white, thick on disk, abruptly thin on margin; odor and taste mild.

Lamellae narrowly adnate, rounded behind, seceding, at first grayish, then "light cinnamon drab," finally "deep brownish drab," broad, close, edge pale and fimbriate.

Stipe 3-8 cm. x 3-8 mm., hollow, dry, white, apex mealy to pruinose, elsewhere with olive to fuscous fibrils (often disposed as reticulations), equal, base slightly enlarged and yellowish.

Spores 6.5-9 x 3.5-4.5 μ , ellipsoidal, ends blunt, smooth; color in mass: "dusky drab" to "light drab."

Pleurocystidia scattered, few, bottle-shaped to ventricose 36-44 x 11-16 μ ; cheilocystidia clustered, similar, slightly smaller.

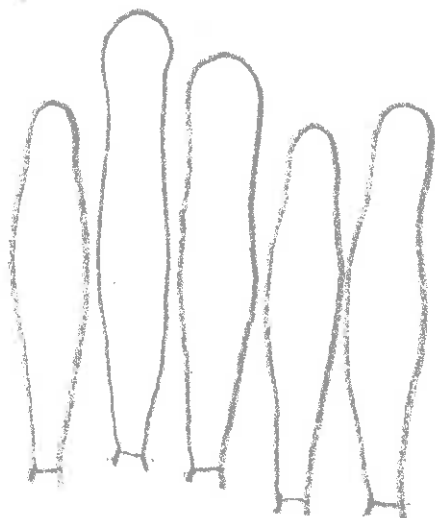
On soil and humus, under hemlock and rhododendron, Blount County (Park), Tennessee, and Highlands, North Carolina, September-November.



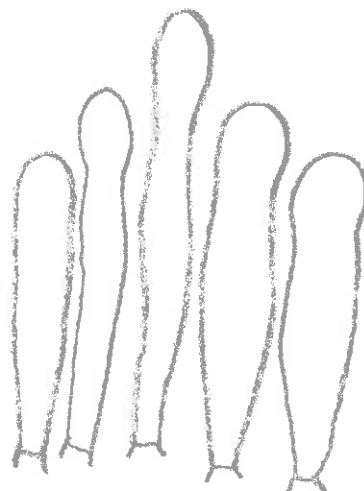
18281 - *Psathyrella aggregata* (Pk.) Smith

Psathyrella

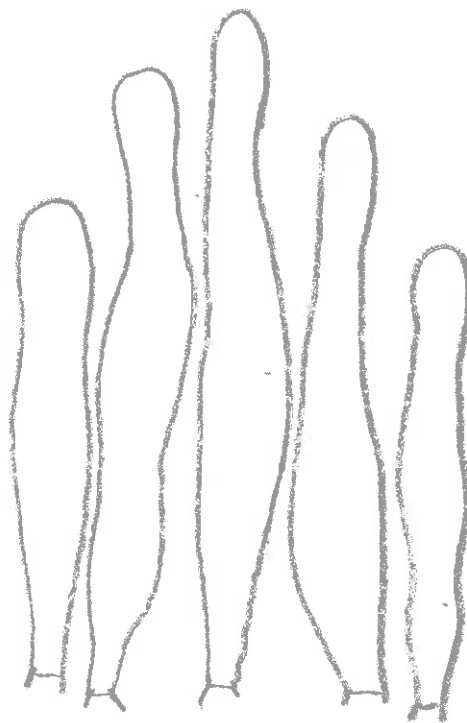
40068



Gl x 1000



Ch x 1000



Cauls - x 1000

Psathyrella alachuana Murrill

Murrill's description (Mycologia 35:537. 1943):

"Pileus convex to expanded, umbonate, gregarious, 1.5 cm. broad; surface glabrous, pallid when young, dark-brown when mature and moist, fading when dry, margin widely striate, abruptly upturned; context membranous; lamellae adnexed, rounded behind, broad, ventricose, rather distant, inserted, white to blackish, edges minutely notched and fringed; spores ellipsoid, smooth, black, opaque, about $11 \times 7 \mu$; stipe slightly enlarged below, hollow, fragile, smooth, glabrous, white, unchanging, about $4-6 \times 0.1$ cm.

"Type collected by W. A. Murrill on an open grassy lawn in Gainesville, Fla., July 5, 1942 (F 18516). A small, fragile species resembling Coprinus. At maturity the pileus suggests a wide, flat hat with a small crown and upturned brim.

"According to Singer, 'Spores brownish-black, $10.7-13.4 \times 6.7-7.5 \mu$, ellipsoid, in a certain position sometimes subrhomboid, with thick, smooth wall, discolored in concentrated H_2SO_4 , with truncate germ-pore. Two-spored basidia present. Cheilocystidia $27-32 \times 9-18 \mu$, broadly fusoid or bottle-shaped with broadly rounded apex, hyaline, smooth. Cystidia none. Cuticle cellular, the cells about $20-28 \mu$ in diam., subhyaline. Dermatocystidia of the stipe irregularly vesiculose, some more clavate ($27 \times 14 \mu$) or tapering from a swollen base, hyaline.' "

Psathyrella alachuana Murrill

Murrill's description (Lloydia 5:155. 1942):

"Pileus semiglobose, not fully expanding, gregarious, 1 cm. broad; surface innate-squamulose, dark-rosy-isabelline, margin even, entire, not appendiculate; context thin, pallid; lamellae adnexed, rounded behind, narrow, crowded, entire, pallid; spores oblong-ellipsoid, smooth, smoky-yellowish under the microscope, about $12 \times 5 \mu$; stipe equal, glabrous, white, about 2×0.3 cm.

"Type collected by W. A. Murrill on a dead hardwood stub in a low hammock at Gainesville, Fla., Sept. 6, 1939 (F 19972). Slow to mature, although kept under a belljar, where it retained its convex form but ripened some spores, the gills remaining pallid. The dried caps are castaneous."

18895

PSATHYRELLA ALBESCENS Hesler & Smith

PHOTO

On decaying chip-pile and other humus
Farragut, Knox County
Coll.: L. R. Hesler, February 20, 1949
Det.: A. H. Smith

Type

Pileus 5-8 cm broad, hemispheric, expanding convex, not viscid, hygrophanous, whitish to "pale pinkish buff" (dry), "dresden brown" (wet), slightly atomate, radiately rugose, appearing striatulate. Flesh thin, pallid; odor and taste mild.

Lamellae adnate-decurrent, dull white when young (near "pale pinkish buff"), "snuff brown" (mature), rather broad, narrowed somewhat in front, close, edge fimbriate.

Stipe 6-8 cm x 5-6 mm, whitish, few dark fibrils, apex white-squamulose, then white-mealy, strict, tapering upward, base often curved and often enlarged, hollow. Veil white, appendiculate, webby, evanescent.

Spores (7)8-9(10) x 3.5-4.8 μ , ellipsoidal, somewhat inequilateral, smooth, near "black brown (1)" in mass. Pleurocystidia bottle-shaped, stipitate, few and scattered, 35-48 x 8-10 (apex) x 16-20 (center) μ ; cheilocystidia pyriform to balloon-shaped, 20-35 x 11-20 μ . Surface of pileus composed of pyriform to subglobose cells, 24-32 μ in diameter.

20292

PSATHYRELLA ALBESCENS Hesler & Smith

on humus and fallen leaves (oak-sycamore)
near Hardin Valley, Knox County
Coll. L. R. Hesler, March 23, 1952
Det. A. H. Smith

Pileus 3-5.5 cm broad, convex, expanding plane, not viscid, hygrophanous, white when dry, "Saccardo's umber" to "dresden brown" when wet, young button "bister," disc "honey yellow," glabrous (though appearing appressed-fibrillose under lens), atomate, radiately rugose, margin even when dry, striatulate when wet. Flesh white, thin; odor and taste none.

Lamellae adnate, sub-emarginate, broad, ventricose, "Saccardo's umber" at maturity, white in button-stage, edge minutely fimbriate, close.

Stipe 5-8 cm x 4-6 mm, white, apex white floccose or squamulose, elsewhere with scattered, dark fibrils, equal or slightly tapering upward, stuffed then hollow. Veil white, fibrous, evanescent, not appendiculate.

Basidia 2-4-spored. Spores ellipsoidal, (7)8-9 x 4-4.8 μ , smooth, "blackish brown (2)" in mass; fading in KOH.

Pleurocystidia scattered, ventricose, apex rounded, 45-56 x 12-14 (middle) x 8-9 (apex), stipitate by a basal, slender stalk. Cheilocystidia relatively few, 32-38 x 12-16 (middle) x 6-8 (apex). Surface of pileus composed of 2 or 3 layers of globose to pyriform, smooth cells, 35-42 x 28-32 μ .

albescens Hes. & Sm.
Psathyrella No. 18895

10929 -
near Smith's
(Key p. 17) *acc. cystidia*
BBK 510

Pileus 5-8 cm. broad, hemispheric, expanding convex, not viscid, hygrophanous, whitish to "pale pinkish buff" (dry), "dresden brown" (wet), slightly atomate, radiately rugose, appearing striatulate.

Flesh thin, pallid; odor and taste mild.

Lamellae adnate-decurrent, dull white when young (near "pale pinkish buff"), "snuff brown" (mature), rather broad, narrowed somewhat in front, close, edge fimbriate.

Stipe 6-8 cm. x 5-6 mm., whitish, few dark fibrils, apex white-squamulose, then white-mealy, strict, tapering upward, base often curved and often enlarged, hollow.

Veil white, appendiculate, webby, evanescent.

Spores (7) 8-9 (10) x 3.5-4.8 μ , ellipsoidal, somewhat inequilateral, smooth, near "black brown (1)" in mass.

Pleurocystidia bottle-shaped, stipitate, few and scattered, 35-48 x 8-10 (apex) x 16-20 (center) μ ; cheilocystidia pyriform to balloon-shaped, 20-35 x 11-20 μ .

Surface of pileus composed of pyriform to subglobose cells, 24-32 μ in diameter.

On chips, Knox County, Tennessee, February-April

Same as (or close to) No. 20292 and No. 20799.

(Notes by John E. Ward)

Pileus 8-15(20) mm broad, convex, glabrous, slightly viscid when moist, margin even, margin at first incurved, sometimes slightly floccose and in most instances appendiculate from whitish to cream veil (veil breaks away from stem very early leaving on the margin a border which disappears; there are not any apparent remnants left on the stem), at first "Russet brown" (Maerz & Paul, plate 14-I 12) ^{quickly} ~~gradually~~ becoming "Amber brown" (plate 13-K 12) at maturity "Topaz" (plate 12-I 8) or more often "Buff" (plate 11-K 7) or "Yellow ochre" (plate 11-L 7), in age turning to "Topaz" or "Hazel" (plate 13-J 9), context "Straw" (plate 10-F 2) to "Italian straw" (plate 11-D 2), thick on disk and thinning toward margin, sometimes slightly darker nearest lamellae and pellicle; odor not distinctive, taste bitter (similar to inner woody part of pecans).

Lamellae adnate-seceding, "Italian straw" and even darker at times (Maple, plate 11-E 4), under dissecting scope definitely "Straw," darker color is due to dotting by spore masses, becoming darker with age, approaching "Russet brown," moderately broad, sub-distant, unequal, edges somewhat crenate appearing to be somewhat fimbriate and lighter in color.

Stipe 2.5-4.0(5.0) cm long, 1.5-3.0(3.5) mm thick, equal, stuffed becoming hollow, creamy-floccose at apex (often becoming almost glabrous toward the base; I am almost certain that these cottony tufts of hyphae are part of the stipe entirely and not from the veil), white-myceloid at the base in most instances,

a very few specimens appeared to be faintly striate with age, color when young "cream" (plate 9-D 2) when mature "Straw" to "Honey sweet" (plate 11-J 6).

Notes by R.B.H.

Spores 11-15(17) x 8.5-10.5 μ , ellipsoid, smooth, brown in 2% KOH (Ward says spores in mass appear purple-brown), thick-walled, with a germ-pore, and often obscurely truncate. Basidia 30-40 x 6-9 μ , ~~4~~¹-2-spored (no 4-spored found). Pleurocystidia 24-50 x 7-13 μ , ventricose, apices obtuse or subcapitate, or often with a neck which may be inflated-appendiculate; cheilocystidia 25-36 x 6-10 μ , ventricose or bottle-shaped, with a neck, usually nine-pin-shaped, capitate.

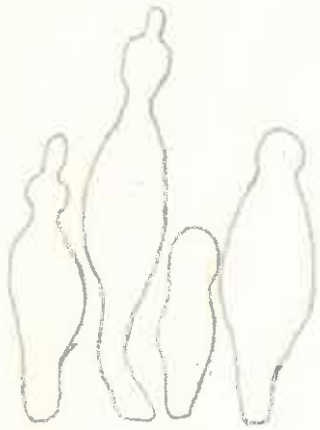
Gill trama subparallel to slightly interwoven, hyphae 4-10 μ broad. Pileus trama loosely floccose. Cuticle of clavate, ventricose, or subpyriform cells forming a loosely-organized palisade. Clamp connections not found.

Gregarious on open lawn, Wake Forest College campus behind Winston Hall. Occurring once in June, twice in July, once in August of this year; all occurrences were in the same spot.

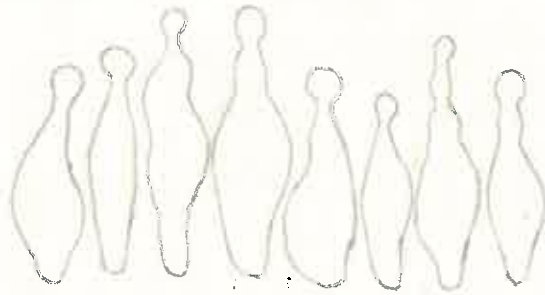
Near Ps. trepida Fr. (sensu Lange), in which the pileus is striate; and also close to Smith's B-1605.

Spathyella amarus Ward + McDonald

Tenn - 26282



Pl - x 1000



Ch - x 1000



Cuticular cells

Psathyrella anaglaea (Maire) Smith and Hesler

Psathyra anaglaea Maire

Pileus 7-15 mm. broad, convex-hemispheric, very fragile, glabrous, hygrophanous, "Natal brown" (dark vinaceous brown) when moist, "vinaceous fawn" (sordid vinaceous) and atomate when faded, radially wrinkled to subplicate; flesh thin, sordid brownish, odor none; lamellae adnate with a decurrent tooth and line, ventricose and broad, subtriangular, sub-distant, two tiers of lamellulae, "Benzo brown" (purplish brown) or when dried blackish brown, the edges "vinaceous fawn" at maturity; stipe 2-4 cm. long, 1-1.5 mm. thick, equal, hollow, fragile, dingy whitish when fresh, pale dull avellaneous when dried, easily splitting, glabrous except for the pruinose apex.

Spores 12-14.7 x 7-8 μ , smooth, ellipsoid to subovoid, black or blackish revived in KOH, apical pore present but inconspicuous; basidia four-spored, hyaline in KOH, 23-28 x 10-12 μ , clavate; pleurocystidia scattered to rare, 36-63 x 12-16 μ , broadly ventricose above a narrow pedicel and apex acute to subacute, neck elongated, narrow, and distinctly narrowed above the ventricose portion, hyaline in KOH, smooth, thin-walled; cheilocystidia abundant, of two types, fusoid-ventricose and hyaline, or clavate and yellowish as revived in KOH, the former 30-36 x 9-12 μ and neck not elongated, the latter clavate to ellipsoid with very slightly thickened walls;

gill trama of enlarged cells more or less parallel and pale cocoa-color to reddish brown in KOH; pileus trama of floccose interwoven hyphae, pale cocoa-color to sordid tan or finally nearly hyaline in KOH; cuticle of inflated cells with hyaline walls, some clavate or pedicellate but not arranged in a palisade, irregularly two cells deep.

Habit, habitat and distribution: On soil in woods near Mt. LeConte, Great Smoky Mountains National Park, Tennessee, May 24, 1942, L. R. Hesler 14213.

The distinctive features of this species are the obscurely vinaceous brown pilei in the moist unexpanded stages, the large spores, pleurocystidia and the slightly sordid to brownish stipe. The almost coal black spores as seen in mounts revived in KOH are an additional distinctive feature which aids in identifying herbarium material. Actually it is difficult to be certain that the American collection represents Maire's species. There is a difference in the color of the pileus and apparently in the way the colors change in age, i. e. they become pinkish in collection H.14213. However, so little material is known of the species, that its variations are not established and we do not feel justified in placing emphasis upon the differences in color. The stature, commonplace aspect as pointed out by Maire, spores, cystidia, and tendency of the stipe to be colored all indicate identity with Maire's species. Psathyrella anaglaea differs from P. trepida in the broader spores and lack of dark russet colors of the buttons. Psathyrella tenera lacks pleurocystidia and the tramae of its gills and pileus are hyaline when revived in KOH. Psathyrella rudericola differs in having coprinoid paraphyses and broader spores. In addition, there is a sharp difference in the color of the spores when they are revived in KOH. The colored gill trama as revived in KOH and the colors of the cap separate P. anaglaea from P. atomata, but it perhaps is most closely related to the latter. Psathyrella prono and P. subatomata Lange also differ in the same characters.

14693

PSATHYRELLA BETULINA Pk.

on soil, among chips, bark, etc.
Highlands, N.C., leg. Hesler, Sept. 3, 1942
Det: A. H. Smith

Pileus 1-2 cm broad, convex, not viscid, hygrophanous, clay color (dry), clove brown (wet), canescent, margin striatulate (wet). Flesh thin, watery, fragile; odor and taste mild.

Lamellae adnate, seceding, very broad, narrowed in front, close, dark purplish-slate (not matched), edge fimbriate.

Stipe 3-5 cm x 1.5-2.5 mm, white, fragile, glabrous, silky below, shining, hollow.

Spores 8-9 x 4.5-5 μ , ellipsoidal, purple-brown, smooth. Cystidia rare on sides, clustered on edges, ventricose, 32-40 x 9-12 μ .

PSATHYRELLA CAMPTOPODA (Pk.) Smith

Mycologia 42:126. 1950

Agaricus camptopus Pk., N.Y. State Mus. Ann. Rept. 31:35. 1879.

Psilocybe camptopoda (Pk.) Sacc., Syll. Fung. 5:1057. 1887.

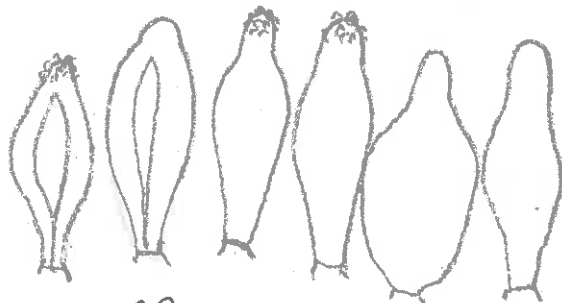
Type of Agaricus camptopus Pk.

Spores $5-6 \times 3.2-4 \mu$, at times slightly reniform in profile, ellipsoid in ~~face~~ face view, smooth, no germ pore, wall thin, pale pinkish-yellow in 2% KOH. ϕ 30-34 \times 9-11 (15) μ , ^{to flask-shaped,} ventricose, + with or without a stalk, often thick-walled + apices frequently incrustated; Ch 20-28 \times 9-12 μ , similar to ϕ , but usually thin-walled. Pileus cuticle of vesiculate cells, ~~1-2~~² layers thick.

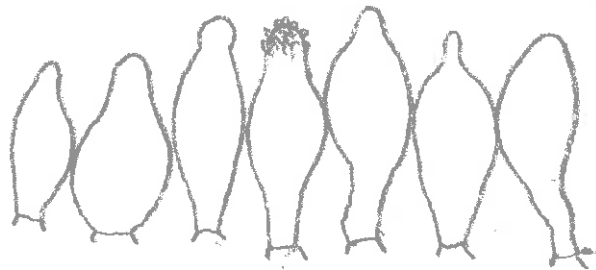
See: Smith: N.A. Species of Psathyrella, p. 245, 1972.
(see: Tamm - 18686; photo.)

Psathyrella camptopoda (PK.) Sm.

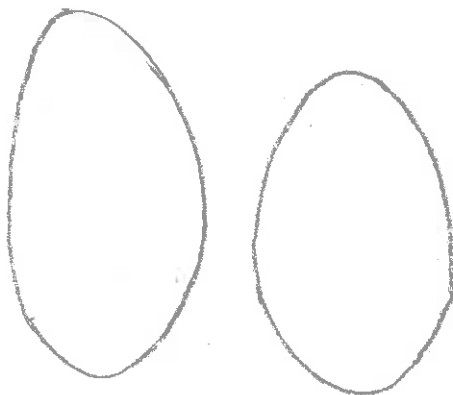
[Agar. camptopus PK. - Type]



PP x 1000



Ch x 1000



Spores x 8000

18686

PSATHYRELLA CAMPTOPODA (Pk.) A. H. Smith

on log

Greenbrier, G. S. M. N. Park

Coll. J. H. Taylor, October 10, 1948

Pileus 7-16 mm broad, convex, dry, hygrophanous, "pinkish buff" (dry), "wood brown" to "buffy brown" (wet) disc paler (wet), surface plush-like (under lens, when dry) and composed of globose to pyriform, colorless cells (20-40 x 20-25 μ), margin even when dry, striatulate when wet. Flesh thin, white; odor and taste none.

Lamellae rounded behind and narrowly adnate, subventricose, broadest behind, close, edge fimbriate, "snuff brown" at maturity (young gills not seen).

Stipe 8-12 mm x 1-1.5 mm, pallid, dry, apex mealy elsewhere glabrous, tapering downward, solid, rather tough.

Spores 6.5-7.5(8) x 4-4.5 μ , ellipsoidal, smooth, pale brown under microscope. Pleurocystidia scattered, ventricose, clavate, bottle-shaped, apex often crystallate, base often curved and stalked, at times deeply imbedded, 32-48 x 11-16 μ ; cheilocystidia clustered, ventricose to fusoid, 32-41 x 9.5-11 μ .

Psathyrella camptopoda (Pk.) A. H. Smith

Pileus 7-16 mm. broad, convex, dry, hygrophanous, "pinkish buff" (dry), "wood brown" to "buffy brown" (wet), disk paler (wet), surface plush-like (under lens, when dry) and composed of globose to pyriform, colorless cells (20-40 x 20-25 μ), margin even when dry, striatulate when wet.

Flesh thin, white; odor and taste none.

Lamellae rounded behind and narrowly adnate, sub-ventricose, broadest behind, close, edge fimbriate, "snuff brown" at maturity (young gills not seen).

Stipe 8-12 mm. x 1-1.5 mm., pallid, dry, apex mealy elsewhere glabrous, tapering downward, solid, rather tough.

Spores 6.5-7.5 (8) x 4-4.5 μ , ellipsoidal, smooth, pale brown under 'scope.

Pleurocystidia scattered, ventricose, clavate, bottle-shaped, apex often crystallate, base often curved and stalked, at times deeply imbedded, 32-48 x 11-16 μ ; cheilocystidia clustered, ventricose to fusoid, 32-41 x 9.5-11 μ .

On log, Greenbrier, Sevier County, Tennessee (Park),
October.

Psathyrella Candolleana (Fr.) A. H. Smith

Hypholoma incertum (Pk.) Sacc.

Hypholoma Candolleanum (Fr.) Qué1.

Hypholoma appendiculatum Fr.?

Pileus 1.5-5 (8) cm. broad, convex, dry, more or less hygrophanous, glabrous (but velvety or plush-like under lens), atomate, "chamois" when young, finally "cream color," "light buff," to "olive buff," margin pale, rivulose to rugulose, splitting radially, appendiculate, striate (wet or dry).

Flesh thin, fragile, white; odor and taste mild.

Lamellae adnate to adnexed, seceding, narrow to medium broad, linear, crowded, tapering both ways, white, then - "fuscous," "brownish drab" or "cinnamon drab" at maturity, edge beautifully crenulate-fimbriate.

Stipe 2.5-7 (10) cm. x 3-8 mm., whitish, dry, base connate (2-7 sporophores), at times sub-bulbous, hollow, cartilaginous, floccose or mealy above, elsewhere glabrous, shining below.

Veil appendiculate, evanescent.

Spores 6.5-9 x 4-5 μ , ellipsoidal, color in mass: "bone brown," "deep brownish drab," or "fuscous-black."

Basidia 4-spored, 15-31 x 6-7.5 μ .

Pleurocystidia none; cheilocystidia cylindrical or clavate-cylindrical, often inflated at apex, 22-48 x 8-10 (16) μ .

Gill trama of large elements, 70-310 x 20-25 μ , somewhat pseudo-parenchymatous to parallel hyphae.

One collection (No. 10148), from lawn, Knox County, Tennessee, May, with unusually large pilei (up to 15 cm. broad), was identified by Dr. A. H. Smith as a "large form." The stipe, 6-15 cm. x 4-14 cm., was correspondingly large. The spores, 7-9.7 x 5.5-6 μ , were slightly larger than the usual forms.

On lawns, humus, compost, and fresh soil, in frondose woods, Knox County, Tennessee, April-August.

7787 PSATHYRELLA CANDOLLEANA (Fr.) Maire var. CANDOLLEANA

on lawn, Knoxville, Tenn.

Coll.: Helen Underwood, June 6, 1934

Det.: L. R. Hesler

Pileus 3-4(-8) cm broad, radiately wrinkled, micaceous
(see Kauff.). Stipe 7-13 cm x 3-8 mm (see Kauff.)

Spores elliptical, smooth, uniform in size $6.6 \times 4.5 \mu$.
Basidia 4-spored, $15.8 \times 6.3 \mu$ to $31 \times 7.8 \mu$. Trama of
parallel to subparallel hyphae, cells large $70-310 \times 22 \mu$.
Pleurocystidia none. Cheilocystidia sac-shaped, inflated
above, $22 \times 7 \mu$ to $38 \times 12 \mu$.

14177 PSATHYRELLA CANDOLLEANA (Fr.) Maire var. CANDOLLAEANA

on soil and humus, frondose woods (roadside)
Chimneys Camp Ground, GSMNP
Coll.: L. R. Hesler and S. L. Meyer
May 24, 1942

Pileus 4-8 cm broad, convex to campanulate, more or less umbonate, whitish, margin becoming purplish-drab, disc ivory yellow (R.), micaceous, hygrophanous, rivulose, splitting radially. Flesh very thin, white, fragile; odor and taste mild.

Lamellae adnate, linear, cinnamon drab ~~(/V)~~ (R.), narrow, crowded, edge white fimbriate.

Stipe 5-10 cm x 3-7 mm, white, mealy and striate above, elsewhere silky, equal, hollow, fragile.

Spores 7-9 x 4-5 μ , ellipsoid, smooth. Cheilocystidia clustered on edges, 40-45 x 8-10 μ , cylindrical-clavate. Pleurocystidia none.

Veil appendiculate, evanescent.

17971

PSATHYRELLA CANDOLLEANA (Fr.) Smith var.
CANDOLLEANA

on grassy soil, open woods
Knoxville (Tyson Park)
Coll.: L. R. Hesler, May 24, 1947

Pileus 3-5 cm broad, dry, convex-conical, expanded and upturned, splitting radially, "chamois" when young, finally "cream color" to "light buff," margin paler and rugose, appendiculate. Flesh thin, pallid; odor and taste mild.

Lamellae adnate, seceding, not broad, crowded, white then "brownish drab," edge fimbriate.

Stipe 5-7 cm x 4-7 mm, often compressed, floccose above, glabrous and shining below, hollow, dry.

Spores 8-9 x 4.5-5 μ , ellipsoidal, smooth "deep brownish drab" in mass. Pleurocystidia none; cheilocystidia subcylindrical, often inflated above, 40-48 x 11-16 μ .

18613 PSATHYRELLA CANDOLLEANA (Fr.) var. CANDOLLEANA Maire

on fresh dirt, woods
near Knoxville

Coll.: L. R. Hesler, August 17, 1948

Det.: A. J. Smith

Pileus 1.5-5 cm broad, convex, dry, slightly or scarcely at all hygrophanous, glabrous (but velvety or plush-like under lens), atomate, "chamois" when young, finally "cream color" to "light buff," margin pale, rugose, appendiculate, striate (wet or dry). Flesh thin, white; odor and taste mild.

Lamellae adnate to adnexed, seceding, medium broad, linear, crowded, tapering both ways, white, then "fuscous" to "brownish drab" at maturity, edge beautifully crenulate-fimbriate.

Stipe 2.5-7 cm x 3-7 mm whitish, dry, base connate (2-7 sporophores), at times sub-bulbous, hollow, floccose or mealy above, elsewhere glabrous, shining below.

Spores 6.5-9 x 4-5 μ , ellipsoidal, color in mass: "bone brown" to "deep brownish drab." Basidia 4-spored, 15-31 x 6-7.5 μ . Pleurocystidia none; cheilocystidia cylindrical, often inflated at apex, clustered, 22-48 x 8-10.5(16) μ .

Gill trama of large elements, 70-310 x 20-25 μ , somewhat pseudo-parenchymatous to parallel hyphae.



19635 - *Psathyrella Candolleana* (Fr.) A. H. Smith



20859- *Prathyrella Candolleana* (Fr.) Smith



20877 - *Psathyrella Candolleana* (Fr.) Smith



30162 - *Psathyrella candolleana* (Fr.) Maire

30162 - *Isathyrella candolleana* (Fr.) Maire

HYPHOLOMA CONFERTISSIMUM Atkinson

Amer. Phil. Soc. Proc. 57:355. 1918

"Dense caespitosum, 8-12 cm. altum et 10-20 cm. latum: pileo ovali dein convexo, 1-3.5 cm. lato, hygrophano, pallide argillaceo, demum pallide ochroleuco vel pallide albo, in centro argillaceo et ruguloso, velo universali albo-floccoso, demum pileo fibrilloso-squamoso et appendiculato et pallide cinereo-brunneo maculato vel virgato: lamellis stipite adnato-adnexus, demum liberatis, ellipticis, confertissimis, cinereis dein purpureo-brunneis, acie alba: cystidiis in superficie et acie lamellarum subfusoides-ventricosus, 35-50 x 11-14 μ : sporis quaternis, purpureo-brunneis, levibus, 5-7 x 2.5-3 μ : stipite aequali, recto vel flexuoso, albo, cavo, albo-floccoso-squamoso, fragili, 3-5 mm. crasso, membrana mycelii oriente.

"No. 25063, type, C. U. Herb., tufts of 50-100 individuals from dead roots or buried wood, in forest of mixed hard wood, Hoop Pole Ridge, west of Oakland, Md.. Sept. 24, 1917. G. F. Atkinson collector. This species is related to Hypoloma aggregatum Peck, but differs in its smaller spores, different cystidia, yellow mat of mycelium, etc."

Hypholoma confertissimum Atk. Proc. Amer. Phil. Soc. 57: 355. 1918.

Psathyrella confertissima (Atk.) A. H. Smith

Pileus ² 5-6 cm., convex, expanding, hygrophanous, not viscid, "light vinaceous-cinnamon" to "light cinnamon drab," darker when wet (near "mummy brown"), with white silky fibrils, radiately rivulose, with evanescent, fibrillose-scaly brown patches around margin or ~~all over~~ ^{throughout}; margin ^{crenulate}, ^{appendiculate}.

Flesh thin, white or pallid; odor and taste slight.

Lamellae adnate ^{to} ~~adnexed~~, seceding, "drab gray," finally "warm sepia," crowded, ^{narrow to} medium ~~or rather~~ broad, many short, ventricose, edge serrulate ~~or crenulate~~.

Stipe 5-7 (10) cm. x 3-5 (6) mm., white, shining, apex mealy, scattered-fibrillose, dry, cartilaginous, fragile, equal, base yellowish, hollow, ^{often connate at base}.

Spores ^{4.5} 4-6 x 3-4 μ , smooth, ellipsoidal, one or both ends blunt; color in mass: "carob brown," to "bister."

Pleurocystidia scattered, bottle-shaped, ²⁷ 30-48 x 8-13 μ ; cheilocystidia ^{bottle-shaped to} clustered, clavate-cylindrical, ¹⁶ 20-32 x 8-11 μ .

Flesh and cuticle of pileus pseudoparenchymatous.

Sporophores caespitose, 25 (more or less) sporophores in a cluster.

On soil, in frondose woods and under rhododendron, Carter County, Tennessee, and Highlands, North Carolina, August-September.

(See Mycologia 31:547. 1939)

9555 PSATHYRELLA CONFERTISSIMA (Atk.) Smith

On soil, in woods
Greenbrier, Sevier Co., Tenn., Oct. 18, 1936

Sporophores in dense caespitose clusters of 50-100 fruiting bodies, the cluster a foot or more in diameter.

Pileus 2.5-4.5 cm broad, convex, expanding somewhat, pale ochraceous (dry), disc slightly darker (dry), smoky brown (wet), hygrophanous, atomate, glabrous, not viscid, margin faintly striate, veil appendiculate, white. Flesh white, thin, odor mild, taste mild at first, later slightly bitter.

Lamellae grayish (young) then dark brown, adnate, broadest behind, edge serrulate, close or crowded.

Stipe 8-13 cm long, 3-6 mm diameter, white, shining, hollow, pruinose above, scarcely striate, dry, large numbers of stipes connate at base.

Spores ellipsoid, ends blunt, brown in mass (see spore print), mostly $5.5 \times 3.6 \mu$. Cystidia on sides and edges, bottle-shaped, projecting $10-18 \mu$, measuring $30-40 \times 11-13 \mu$.

17134 PSATHYRELLA CONFERTISSIMA (Atk.) Smith PHOTO

on sandy bank, oak woods

Highlands, N.C.

Coll.: L. R. Hesler, September 12, 1945

Pileus 2-3 cm broad, convex, obtusely umbonate, grayish-brown (not matched), tinted "light cinnamon-drab," fibrillose, with scattered fibrillose scales, sub-virgate or rivulose, not viscid, not hygrophanous, margin slightly appendiculate and usually with a band near margin. Flesh thin, white; odor and taste mild.

Lamellae adnate, crowded, medium broad, "drab gray," many short, edge fimbriate.

Stipe 4-6 cm x 3-4 mm, white, apex mealy, fibrillose below, densely so at first, cartilaginous, fragile, hollow.

Spores 5.5-6.5 x 3.2-3.5 μ , ellipsoidal, ends blunt; color in mass: "carab brown." Pleurocystidia scattered, bottle-shaped, 40-48 x 11-13 μ . Cheilocystidia clustered, similar, smaller, 24-32 x 8-10 μ . Plants caespitose.

17134 - *Psathyrella confortissima* (Atk.) Smith

17148 PSATHYRELLA CONFERTISSIMA (Atk.) Smith

at base of rhododendron

Highlands, N. C.

Coll.: L. R. Hesler, September 11, 1945

Det.: A. H. Smith

Pileus cespitose, 2-3 cm, broad, convex, hygrophanous, "clay color" to "tawny olive" (dry), watery brown (wet), striatulate (wet), margin decorated with white strigose patches which disappear. Flesh thin, concolor; odor and taste mild.

Lamellae adnate to adnexed, white becoming "drab-gray," crowded, medium broad, edge fimbriate.

Stipe 3-6 cm x 3-6 mm, white-fibrillose, glabrescent, equal, hollow.

Spores ellipsoidal, blunt at each end, 5-5.5 x 3-3.2 μ , smooth. Pleurocystidia ventricose, 40-52 x 11-13 μ ; cheilocystidia similar, 24-32 x 10-12 μ .

17718

PSATHYRELLA CONFERTISSIMA (Atk.) Smith

On soil, woods

Iron Mt., Elizabethton

Coll.: A. J. Sharp, Aug. 28, 1946

Pileus 2-3 cm broad; convex, hygrophanous; pale brown with a vinaceous tint (dry), dark watery brown (wet), not matched, radiately rugulose. Flesh white, thin; odor and taste mild.

Lamellae adnate to adnexed, crowded, rather broad, edge fimbriate, near "bone brown."

Stipe white shining, silky, with scattered, dark fibrils, tubular, cartilaginous.

Spores 5-6 x 3-4 μ , ellipsoidal, both ends blunt (nearly rectangular), smooth, "chestnut brown" in mass. Pleurocystidia few, bottle shaped, 25-30 x 9-11 μ . Cheilocystidia few, similar.



21007 - *Psathyrella confertissima* (Atk.) Smith



18645 - *Psathyrella confertissima* (Atk.) Smith

4367

PSATHYRELLA CONISSANS (Pk.) Smith

PHOTO

on soil, base of birth tree
Grassy Patch, Great Smoky Mts. National Park,
Sevier Co., Tenn. 5,000 ft.
Coll: L. R. Hesler, June 27, 1934
Det: A. H. Smith

Pileus 3-5.5 cm broad, convex then expanded, often wavy and up-turned, hygrophanous, chestnut-brown (moist), ochraceous-buff (dry), pe-lucid-striatulate (wet), even when dry, margin at first incurved, glabrous, usually slightly umbonate. Flesh about 4 mm thick over disc, thinner at margin, concolor or paler; odor and taste none.

Lamellae narrowly adnate or adnate-emarginate, somewhat seceding, moderately broad, rounded behind, close, at first whitish then concolor to pileus, edge white-flocculose, many short.

Stipe 5-6.5 cm x 3-5 mm, equal, slightly bulbous at base, lightly stuffed, then hollow, white, apex pruinose, sub-fibrillose, rigid cartilaginous, curved variously.

Spores elliptical to subreniform, 6-7.8(9.5) x 3.5-4.0 (4.7) μ , purplish-brown in mass, smooth. Pleurocystidia numerous, ventricose, 41-47 x 13-19 μ , apex crystallate. Cheilocystidia clavate, saccate or pyriform up to 63 μ x 22 μ . Gill trama brown, parallel, cells (near subhymenium) 10-22 μ diameter x 150 μ ; somewhat irregular near edge of gill. Subhymenium darker than trama, shallow.



4367 - *Psathyrella comissaria* (Pk.) Sm.



12294 - *Psathyrella conissans* (Pk.) Sm.

Psathyrella coronata (Fr.) A. H. Smith ~~published?~~

2-5 cm. broad,

Pileus [^]convex, expanding-convex, hygrophanous, "cartridge buff," disk "cream buff," atomate, veil-remnants on margin, elsewhere glabrous but plush-like, margin striatulate (wet and dry), ~~or rivulose + then falsely striate to disk~~.

Flesh thin, pallid, fragile; odor and taste mild.

Lamellae ascending-adnate, narrow, crowded, at first dingy white then "pale brownish drab" to "warm sepia" or "hair brown," edge white-fimbriate.

Stipe 3-4 ¹²(8) cm. x 1.5-2.0 ⁴(3) mm., apex mealy, elsewhere slightly fibrillose, white, not striate, fragile, equal hollow.

Veil rudimentary, fugacious, appendiculate for brief time.

Spores ^{6.5}6-7 (8) x 3.5-4.8 μ , smooth, ellipsoidal.

Pleurocystidia none; cheilocystidia ^{bottle-shaped, pyriform,} few to clustered and many, ^{to clavate,} cylindrical, ²⁰obtusely, 24-48 x 6-16 μ .

Gill trama parallel, thin. Subhymenium cellular, ~~cells globose to~~

~~pyriform, 16-40 μ in diameter~~
Cuticle composed of a single palisade layer of large globose to subpyriform cells, 16-45 μ diameter.

On soil and humus, in woods, Knox and Sevier (Park) Counties, Tennessee, June-November.



20442 - *Psathyrella coronata* (Fr.) Smith

19001 - *Isathyrella coronata* (Fr.) Smith



20442 - *Spathyrella coronata* (Fr.) Smith



21394 - *Psathyrella coronata* (Fr.) Smith



21508 - *Psathyrella coronata* (Fr.) Smith

25537

PSATHYRELLA CORNATA (Fr.) Smith

from Winter Garden, Fla., leg. Harry J. Farner, Apr. 5, 1963.

Pileus 2.5-7 cm. broad, glabrous. Taste mild. Gills whitish then dark brown. Stipe hollow, splitting easily.

Spores 6.5-8 x 4-4.7 μ , ellipsoid, rarely subovoid, smooth, in deposit: deep brown. Pleurocystidia none; cheilocystidia 20-35 x 9-12 μ , ventricose and short-stipitate, or spathulate or cylindric. Cuticle of cells which are ovoid to ellipsoid, 16-66 x 11-38 μ . Gill trama of long, slender cells; pileus tramal cellular (in tangential sections).

Psathyrella delineata (Pk.) A. H. Smith

Fileus 3-8 cm., convex, hygrophanous, "clay color" (dry), "verona brown" (wet), radiately rugose, not viscid, glabrous, margin not striate.

Flesh fragile, rather thin, concolor; odor and taste mild.

Lamellae adnate to broadly emarginate, close to crowded, broad, "warm sepia," finally darker (purplish brown), edge pale, fimbriate.

Stipe 3-8 cm., whitish, shining, apex mealy, fibrillose-striate, base often enlarged and curved, dry, very fragile, hollow.

Spores 6.5-8 x 4-5 μ , ellipsoidal, smooth, near "dusky drab" in mass.

Pleurocystidia bottle-shaped, with long slender base and apex, 40-72 x 12-17 μ ; cheilocystidia 30-40 x 12-14 μ , pyriform, clustered.

On humus (one collection on oak stump), in frondose woods, Knox, Blount (Park), and Sevier Counties, Tennessee, and Swain County, North Carolina, June-October.

16378

PSATHYRELLA DELINEATA (Pk.) Smith

Indian Creek

L. R. Hesler, June 12, 1944

Pileus 3-6 cm, convex, radiately rugose, clay color, dry. Lamellae emarginate, crowded, purplish-brown (not matched), edge white, fimbriate. Stipe white, shining, dry, hollow.

17202

PSATHYRELLA DELINEATA (Pk.) A. H. Smith

in humus, mixed woods

Cades Cove

Coll.: L. R. Hesler, October 7, 1945

Det.: A. H. Smith

Pileus 3-8 cm, convex, hygrophanous, "clay color" (dry), "verona brown" (wet), radiately rugose, not viscid, glabrous, margin not striate. Flesh fragile, rather thin, concolor; odor and taste mild.

Lamellae adnate to broadly emarginate, close to crowded, broad, "warm sepia," finally darker (purplish brown), edge pale, fimbriate.

Stipe 3-8 cm, whitish, shining, apex mealy, fibrillose-striate, base often enlarged and curved, dry, very fragile, hollow.

Spores 6.5-8 x 4-5 μ , ellipsoidal, smooth, near "dusky drab" in mass. Pleurocystidia bottle-shaped, with long slender base and apex, 40-72 x 12-17 μ . Cheilocystidia 30-40 x 12-14 μ , pyriform, clustered.



20562 - *Psathyrella delineata* (PK.) A.H. Smith

Pileus 5-9 cm. broad, convex-conic, expanding convex, broadly and obtusely umbonate, hygrophanous, "bister" when wet, buff-colored (not matched) when dry, drying from disc outward, glabrous, strongly rugose, margin even, with white fibrillose veil-remnants. Context thin, fragile, pallid; odor slightly pungent, taste slightly of wood.

Lamellae rounded-adnate, seceding, pale buff then "snuff brown", broad (up to 9 mm.), close, edges white-fimbriate.

Stipe 5-9 cm. x 10-13 mm., whitish, with numerous scattered fibrils, striate, usually clavate, hollow. Veil white, fibrillose-submembranous, finally appendiculate to the pileus margin.

Spores 7-8.5 x 4-4.5 μ , oblong, somewhat subreniform, smooth, in deposits: "fuscous-black." Pleurocystidia 51-63 x 11-14 μ , ventricose, appendiculate, base stalked; cheilocystidia similar. Cuticle a palisade.

24910 - *Psathyrella delineata* (Pk.) Sm.

24950 - *Psathyrella delineata* (Pk.) Smith



28997. *Psathyrella delineata* (Fr.) Smith.

12524

PSATHYRELLA FOENISECII (Fr.) Sm.

on lawn

Tellico River, Minroe Co., Tenn.

Coll: A. J. Sharp, May 30, 1940

Det: A. H. Smith

Pileus 1-2(3.5) cm broad, convex, or campanulate-convex, glabrous, hygrophanous, when dry: cartridge buff (R.), disc usually darker (dry), when wet: natal brown or Hay's brown (R.), zoned when wet, margin even. Flesh thin, fragile, colored like pileus; odor mild or none; taste: mild.

Gills adnate, broad, ventricose, almost subdistant, variegated, edge fimbriate.

Stipe 3-5.5 cm x 2-5 mm, whitish to subrufescent, glabrous except pruinose at apex, hollow, fragile.

Spores somewhat lemon-shape, broad, rough, 11-14 x 8-9 μ .
Pleurocystidia none; cheilocystidia narrow, 27 x 4 μ .

15799

PSATHYRELLA FOENISECII (Fr.) Sm.

on lawn

Westmoreland, Knoxville, Tennessee

Coll.: L. R. Hesler, July 11, 1943

Det.: L. R. Hesler, July

Pileus 7-13 mm broad, convex, dry, vinaceous buff (R.), hygrophanous, atomate, matted-fibrillose, margin even when dry, widely striate and zoned when wet. Flesh thin, fragile; odor none, taste mild. Lamellae emarginate, brown (deep brownish drab, R.), hardly close, broad, ventricose, edge white-eroded, inserted. Stipe 2.5-3.5 cm x 1 mm, pallid, scattered-fibrillose, dry, tubular, pruinose at apex. Spores 14-18 x 8-10 μ , sub-limoniform, slightly rough, brown. Pleurocystidia (none found); cheilocystidia clustered at and near edge, cylindrical-nodulose (wavy), 45-54 x 5-5.5 μ . Basidia 36-40 x 12-13 μ , apex broad, abruptly contracted into a narrow basal "stem."

18937

PSATHYRELLA FOENISECII (Fr.) Sm.

PHOTO

on lawn

Boarts', Lowes Ferry

Coll.: M. Boarts, May 12, 1949

Det.: L. R. Hesler

Pileus 2-3 cm broad, conic, then convex-conic, finally plane, shining, hygrophanous, grayish (not matched). Lamellae rounded-adnate, ventricose, broad, nearly close to almost subdistant, "clove brown," edge white-fimbriate. Stipe 5-8 cm x 2-3 mm, dingy, shining, hollow. Spores 12-16 x 8-10 μ , broadly ellipsoidal, apiculate, slightly rough, color in mass: "Chaetura black." Pleurocystidia none; cheilocystidia slender, cylindrical, 30-38 x 4-7 μ .



18937 - *Psathyrella*
~~*Psathyra*~~ *foeniculii* (Fr.) Sm.



19230 - *Psathyrella* ~~*foeniculi*~~ *foeniculi* (Fr.) Sm.

20805

PSATHYRELLA FOENISECII (Fr.) Sm.

PHOTO

on lawn, Tobler Road, Knox County

Coll.: A. J. Sharp

Det.: L. R. Hesler, May 5, 1953

Pileus 1-3 cm broad, hemispheric-convex, expanding-convex, rarely conic, hygrophanous, grayish to "pale ecru-drab" when dry, "benzo brown" when wet, disc pale clay color, drying from margin to disc, glabrous but plush-like under lens, margin even when dry, becoming rivulose-rugulose, striatulate when wet, with a conspicuous dark band at or near margin. Flesh thin, fragile, pallid; odor fungoid or faintly alkaline; taste slight.

Lamellae adnate, seceding, at first pallid grayish-brown, then "fuscous," close, broad, ventricose, dotted by spores, edge pale or white, fimbriate.

Stipe 3-5 cm x 1-2 mm, fragile, somewhat cartilaginous, whitish above, dingy brownish below, glabrous except pruinose apex, hollow, dry.

Spores 11-16 x 7-9 μ , sub-amygdaliform to sublimoniform, slightly rough, color in mass: "fuscous black." Pleurocystidia none; cheilocystidia clustered, cylindrical, 24-32 x 4-6 μ . Cuticle of several layers of globose to ellipsoidal cells, 32-65 x 16-32 μ .



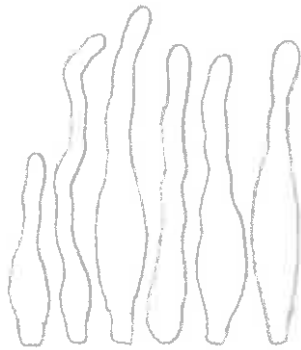
20805 - *Psathyrella*
~~*Leucybe*~~ *foenicarii* (Fr.) Sm.



Psathyrella
 20809- ~~*Psilocybe*~~ *foeniculii* (Fr.) Sm.
 (large form)

~~Parathyrallus~~ *foenicisii* (Fr.) Sm.

UT-28190



Ch - x 1000

39206

PSATHYRELLA FOENESECI (Fr.) Smith

On lawn, Timberlake Rd., Knox Co., May 22, 1974

Pileus 1.5-2.5 cm broad, at first conic-campanulate, somewhat expanding convex, hygrophanous, grayish olive (dry), dark smoky brown (wet), lubricous-subviscid, glabrous, even. Context pallid (dry), thin; odor and taste slight (fungoid).

Lamellae adnexed, ascending, narrow behind, broad (ventricose) in front, close, lamellulae alternating with long lamellae, edges fimbriate.

Stipe 3-6 cm long, 2-3 mm thick, pallid, apex pruinose and striate, elsewhere subglabrous, twisted, equal, hollow.

Spores 11-14 x 7-9 μ , warty, dark. Pleurocystidia none; cheilocystidia 27-48 x 4-6 μ . Pileus cuticle a zone of more or less globose cells, 2-3 layers deep.

on lawn, Hesler's, Knox Co., June 6, 1976

Macro characters as in Smith's monograph.

Spores in deposit "blackish brown(3)", 12-15 x 6-8.5 μ , inequilateral in profile, ellipsoid to sublimoniform in face view, often with a "nose," pore present, wall minutely rough. Pl none; ch 28-34 x 5-8 μ , somewhat bottle-shaped, abundant. Pileis cuticle of several cells deep, many globose, others pyriform,^{or}/subpyriform/^{and} stipitate, rather large to medium or small.

Prathypella foeniseae (Fr) Sm.

40069

more

Profile

Face

Profile

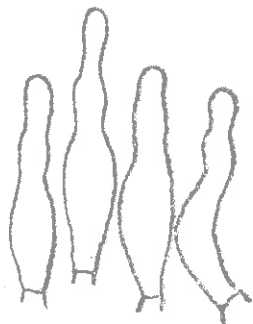
Face

Spores
x 1000

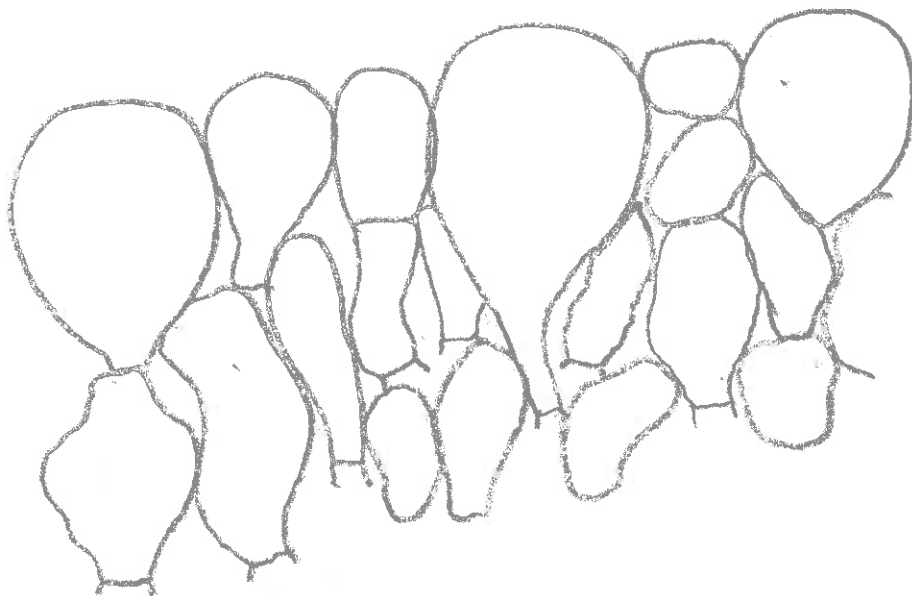
Chaetypella foeniculi (Fr) Sm.

40069

(more)



ch x 1000



Fungus cuticle - x 1000

17725

PSATHYRELLA HESLERI Smith - TYPE

on lawn, Knoxville, Highland Avenue
Coll: L. R. Hesler, September 24, 1946
Det. A. H. Smith

Pileus 3-8 cm broad, convex, finally wavy-upturned, at first with scattered white fibrils, glabrescent; not viscid, hygrophanous, "pale pinkish buff" (dry), "drab" (wet), disc "ochraceous tawny," margin striatulate. Flesh thin, very fragile, moist, dingy brownish; odor and taste mild.

Lamellae narrowly and rounded adnate, crowded, nearly white at first, finally "drab" (not matched), medium broad, edge fimbriate.

Stipe 5-8 cm x 5-8 mm, white, silky, dry, fragile, equal, hollow.

Spores 7-9.5 x 4-5 μ , ellipsoidal, smooth, color in mass: "bone brown" to "warm sepia." Pleurocystidia abundant, 40-64 (72) x 16-22 μ , ventricose, apex crested, often long-stalked. Cheilocystidia few to abundant, similar to pleurocystidia, 40-60 x 13-16 μ .

Psathyrella hydrophila (Fr.) Singer

Pileus 1-5 cm. broad, convex, expanding-wavy, hygrophanous, "ochraceous buff" (dry), "snuff brown" to "Prout's brown" (wet), atomate, glabrous, radiately rivulose, margin even (dry), striatulate (moist).

Flesh thin, white (dry), brownish (wet); odor and taste mild.

Lamellae adnate, seceding, pale brown then "fuscous" to "Prout's brown," crowded or close, tapering both ways, broad or medium broad, edge fimbriate.

Stipe 2-5 cm. x 2-6 mm., silky shining, whitish to pale brown, apex white-pulverulent, elsewhere silky, glabrescent, often connate at base, base subbulbous, white-mycelioid, hollow.

Veil cortinate, white, soon evanescent.

Spores ellipsoidal, 5-6.5 x 3-3.5 μ , color in mass: "benzo brown" to "fuscous."

Pleurocystidia none, or rare near edge, "few, scattered..... subcylindric, projecting 20-25 μ , 7-12 μ in width" (Parker); cheilocystidia clustered, bottle-shaped or pyriform, 16-32 x 9-14 μ .

On soil, decaying frondose wood, etc., Anderson, Blount, and Sevier Counties (Park), Tennessee, and Highlands, North Carolina, April-October.

9570 PSATHYRELLA HYDROPHILA (Fr.) Maire

on hemlock log
Greenbrier, GSMNP
Leg. Hesler, October 18, 1936

Spores 4.5-5.5 x 2.8-3.3 μ , ellipsoid, at times slightly phaseoliform, smooth, no germ pore, faintly clove-brown in KOH. Pleurocystidia 32-45 x 8-11 μ , flask-shaped; cheilocystidia 18-30 x 8-12¹, ventricose, subfusoid, or subpyriform. Cuticle of vesicular pseudoparenchyma.

10937

PSATHYRELLA HYDROPHILA (Fr.) Maire

on soil and decaying tree trunk
Cades Cove, the Park

Coll.: L. R. Hesler, October 17, 1937

Pileus 1-5 cm broad, convex, expanding-wavy, hygrophanous, "ochraceous buff" (dry), "snuff brown" to "Prout's brown" (wet), atomate, glabrous, radiately rivulose, margin even (dry), striatulate (moist). Flesh thin, white (dry), brownish (wet); odor and taste mild.

Lamellae adnate, seceding, pale brown then "fuscous" to "Prout's brown," crowded or close, tapering both ways, broad or medium broad, edge fimbriate.

Stipe 2-5 cm x 2-6 mm, silky shining, whitish to pale brown, apex white-pulverulent, elsewhere silky, glabrescent, often connate at base, base subbulbous, white-mycelioid, hollow. Veil cortinate, white, soon evanescent.

Spores ellipsoidal, $5-6.5 \times 3-3.5 \mu$, color in mass: "benzo brown" to "fuscous." Pleurocystidia none, or rare near edge, "few, scattered . . . subcylindric, projecting $20-25 \mu$, $7-12 \mu$ in width" (Parker); cheilocystidia clustered, bottle-shaped or pyriform, $16-32 \times 9-14 \mu$.

12304 - *Scathyrhella hydrophila* (Fr.) A. H. Smith

16461 PSATHYRELLA HYDROPHILA (Fr.) Maire

on decaying wood and soil
Highlands, N.C.

Coll.: L. R. Hesler and R. M. Boarts
September 2, 1944

Pileus 2-5 cm broad, convex, not expanding, hygrophanous, Prout's brown, glabrous, moist, radiately rivulose. Flesh thin, watery, odor none, taste none.

Lamellae adnate to sub-emarginate, crowded, Prout's brown, tapering at either end, edge fimbriate.

Stipe 3-4.5 cm x 3-6 mm, white, silky-shining, dry, hollow.

Spores 5-6.5 x 3-3.2 μ , ellipsoidal, smooth, brown. Pleurocystidia none (or rare near edge); cheilocystidia clustered 32 x 14 μ and bottle-shaped, or 16 x 9.5 and pyriform.

17178

PSATHYRELLA HYDROPHILA (Fr.) Maire

around and attached to beech log
Newfound Gap

Coll.: L. R. Hesler, September 6, 1945

Pileus 2-5 cm, convex, expanded-wavy, hygrophanous, drying slowly from disc outward, pale buff (dry), dark-brown (wet), atomate, radiately rugulose. Flesh thin, white (dry), brown (wet); odor and taste slight.

Lamellae adnate, seceding, pale brown then dark brown (with a slight reddish tint), crowded, medium broad, narrowed slightly either end, edge fimbriate.

Stipe 2-5 cm x 2-5 mm, shining-white, minutely silky, equal, dry, hollow, 3-6-connate. Veil if any, not seen.

Spores purplish-black in mass.

Psathyrella hymenoccephala (Pk.) A. H. Smith

Pileus 2-4 cm. broad, fragile, dry, scarcely hygrophanous, glabrous (except for veil patches), more or less umbonate, "pale pinkish buff," disk "tawny-olive," radiately rugulose.

Flesh thin, white; odor and taste mild.

Lamellae narrowly adnate, narrow, crowded, "wood brown" to "bister," edge fimbriate.

Stipe 5-8 cm. x 2-4 mm., curved, fragile, white, dry, apex mealy, hollow.

Spores 7-8.5 x 4-5 μ , ellipsoidal.

Cheilocystidia clavate, 25-32 x 9-14 μ . Pleurocystidia none.

Trama of gills striking: of large loosely woven hyphae.

On humus, frondose woods, Swain County (Park), North Carolina, August.

18625

PSATHYRELLA HYMENOCEPHALA (Pk.) Smith

on humus, woods

Indian Creek

Coll.: L. R. Hesler

Det.: Smith, August 7, 1948

Pileus 2-4 cm broad, fragile, dry, scarcely hygrophanous, glabrous (except for veil patches), more or less ~~my~~ umbonate, "pale pinkish buff," disc "tawny-olive," radiately rugulose. Flesh thin, white; odor and taste mild.

Lamellae narrowly adnate, narrow, crowded, "wood brown" to "bister," edge fimbriate.

Stipe 5-8 cm x 2-4 mm, curved, fragile, white, dry, apex mealy, hollow.

Spores 7-8.5 x 4-5 μ , ellipsoidal. Cheilocystidia clavate, 25-32 x 9-14 μ . Pleurocystidia none. Trama of gills striking: of large loosely woven hyphae.

18965

PSATHYRELLA INCERTA (Pk.) Sm.

lawn

Knoxville

L. R. Hesler, June 1, 1949

Pileus 3-7 cm, hygrophanous, "pale smoke gray" when young, finally "olive buff," the margin third paler, atomate, margin rugulose-striate. Flesh thin, fragile.

Lamellae adnate, close, narrow, "dusky drab," edge pale and fimbriate.

Stipe 6-9 cm x 4-8 mm, white, apex mealy, hollow, fragile, cartilaginous.

Spores 7-9 x 4-5 μ , in mass: "fuscous-black."
Pleurocystidia none; cheilocystidia clustered, clavate-cylindric, 40-50 x 11-13 μ .

20177

PSATHYRELLA INCERTA (Pk.) Smith

on lawn (fresh soil), Hesler's place
Knoxville

Coll.: L. R. Hesler, September 16, 1951

Det.: A. H. Smith

Pileus 18-25 mm diameter, "cinnamon buff" when young, paler at maturity (disc remaining buff, elsewhere becoming ashy), hygrophanous, not viscid, with remnants of the veil on margin and scattered on surface, atomate, striatulate. Flesh thin, pallid, fragile; odor and taste none or mild.

Lamellae ~~41~~ adnate to slightly emarginate, "drab" to "hair brown," rather narrow, close to crowded, edge denticulate.

Stipe 3-4 cm x 2-3 mm, white, equal.

Spores 6.5-8 x 4-4.8 μ , smooth, ellipsoidal. Pleurocystidia none; cheilocystidia few, cylindrical, obtuse, 20-24 x 6-8 μ .

20442

PSATHYRELLA INCERTA (Pk.) Sm.

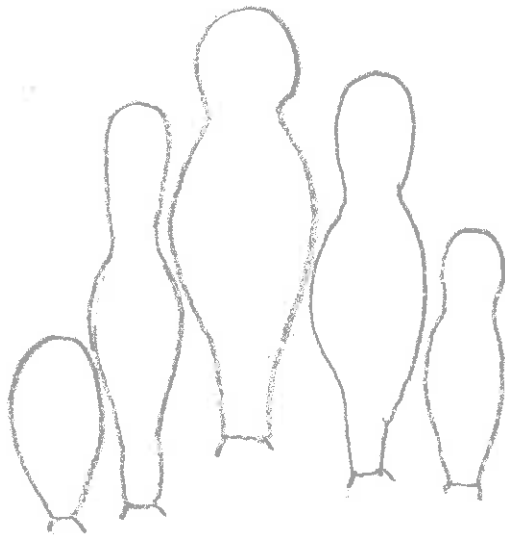
PHOTO

on lawn, Hesler's place, coll. L. R. Hesler, June 15, 1952

Pileus convex, expanding-convex, hygrophanous, "cartridge buff," disc "cream buff," atomate, veil-remnants on margin, elsewhere glabrous but plush-like, margin striatulate (wet and dry). Flesh thin, pallid, fragile; odor and taste mild. Lamellae ascending-adnate, narrow, crowded, at first dingy white then "pale brownish drab" to "warm sepia" or "hair brown," edge white-fimbriate. Stipe 3-4(8) cm x 1.5-2.0(3) mm, apex mealy, elsewhere slightly fibrillose, white, not striate, fragile, equal hollow. Veil rudimentary, fugacious, appendiculate for brief time. Spores 6-7(8) x 3.5-4.8 μ , smooth, ellipsoidal. Pleurocystidia none; cheilocystidia few to clustered and many, cylindrical, obtuse, 24-48 x 6-16 μ . Gill trama parallel, thin. Subhymenium cellular.

Cuticle composed of a single, palisade layer of large globose to subpyriform cells.

Psathyrella incerta (Pk.) Sm.
No. 40029



ch x 1000

40029

PSATHYRELLA INCERTA (PK) Smith (?)

On soil, under Viburnum, Hesler's lawn, October 18, 1975.

Pileus 3-6.5 cm broad, hemispheric-convex, finally expanded-convex, hygrophanous, when dry; "deep colonial buff" to "cartridge buff", glabrous, margin plicate-crenate. Context thin, fragile, white; odor and taste fungoid.

Lamellae whitish, then "light seal brown", crowded, rather narrow.

Stipe 5-8 cm x 5-7 mm, white, glabrous, equal above a very slight bulb, hollow, easily splitting. Veil white, fugacious.

Spores in deposit: "light seal brown"; spores 6-7.5(8) x 4-4.5(5) μ , ellipsoid, brown in KOH, a few obscurely truncate, smooth. Pleurocystidia none; cheilocystidia 25-54 x 10-20 μ , ventricose or ampullaceous, not capitate, a few sub-ellipsoid to sub-pyriform, usually more or less stipitate. Pileus cuticle cellular.

This does not fit too well the description of P. incerta in Smith's "Psathyrella".

16361 PSATHYRELLA KAUFFMANII var. EXANNULATA Smith

in humus, oak woods
Island Home, Knoxville, Tennessee
Coll.: R. M. Boarts, April 23, 1944
Det.: A. H. Smith

Pileus 2-4 cm broad, convex, hygrophanous, dry, pale pinkish buff (R.) (when dry), dark watery brown (when wet), appearing appressed silky under lens, radiately rugulose, margin appendiculate. Flesh thin, medium firm, whitish; odor and taste mild.

Lamellae adnate with a decurrent tooth, or uncinatae, pallid at first, finally dark vinaceous-drab (R.); medium broad, crowded, edge pale, eroded to serrulate.

Stipe 8-14 cm x 3-6 mm, very fragile, brittle, whitish, polished, flexuous, base usually curved and matted-mycelioid, apex mealy, elsewhere glabrous, hollow.

Spores 8-10 x 4.5-6 μ , brown (under microscope), smooth, ellipsoidal. Cheilocystidia clustered, pyriform to cylindrical, 24-35 x 10-12 μ . Pleurocystidia scattered, few, ventricose, 40-45 x 15-18 μ . Veil white, ephemeral, appendiculate.

PSATHYRELLA KELLERMANII (Pk.) Singer

Mycologia 51:392. 1959.

Galera kellermanii Pk., Jour. Mycol. 12:148. 1906.

Galerula kellermanii (Pk.) Murr., N. A. Flora 10:165. 1917.

Type

Spores 8-10(11) x (4.5)5-6(7) μ , more or less inequilateral to subreniform in profile, ellipsoid in face view, smooth, pale yellowish (at times with a brownish tint) in 2% KOH. Thin-walled, no pore seen. Pleurocystidia and cheilocystidia not found. Pileus cuticle a one-two-celled layer, cells vesiculose. Stipe cuticle of dry, repent hyphae.

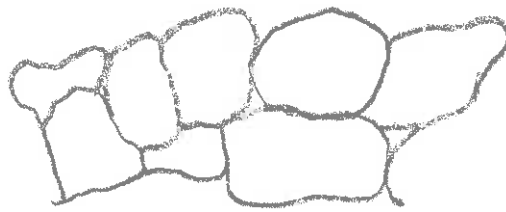
Singer (1959) says pleurocystidia and cheilocystidia numerous, 28-40 x 11.5-14.3 μ , vesiculose-elongate ventricose (I failed to find them).

A note in the box, signed by Watling (Mch. 1966) says it is a Psathyrella, and suggests that possibly there are two distinct taxa in the box (I did not verify Watling's suggestion).

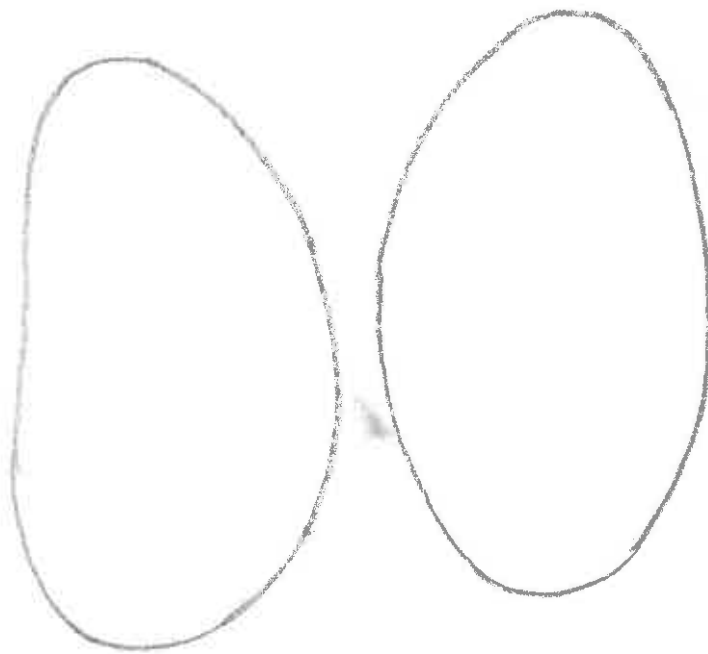
Psathyrella Kellermanii (Pk.) Sing. ✓

[*= Galera Kellermanii* Pk.]

Type



Pileus cuticle
x 1000



Profile

Face

Spores x 8000

PHOTO

18281 PSATHYRELLA LACRYMABUNDA var. AGGREGATA (Pk.) Smith

in humus, under laurel in woods

Cades Cove

Coll.: L. R. Hesler, November 8, 1947

Pileus 3.5-5.5 cm broad, convex, slightly or not at all umbonate, dry, not hygrophanous, pallid-white, densely matter-fibrillose, fibrils white many becoming dark (vinaceous) even. Flesh medium on disc, thin on margin; odor and taste mild.

Lamellae adnate, seceding, crowded, medium broad, near "deep brownish drab" (color when young not observed), edge pale, slightly rough.

Stipe 6-8 cm x 5-8 mm, connate at base, dry, concolor to pileus, fibrillose (as pileus), base yellow, hollow.

Spores ellipsoidal, smooth, 6.5-8.5 x 4-4.8 μ ; in mass: "dusky drab" or near "blackish brown (3)." Pleurocystidia few, bottle-shaped, 30-35 x 11-16 μ ; cheilocystidia none.

Plants caespitose (4 in group).

Near H. aggregatum Pk. Smith (Letter June 10, 1948) says "intermediate between lacrymabunda and aggregata."

11453

PSATHYRELLA LARGA (Kauff.) Sm.

On soil, woods, Cades Cove, May 30, 1937

Pileus 2-6 cm, ochre-brown, convex then expanded, slightly and broadly umbonate, disc darker, not hygrophanous, dry, glabrous or with scattered white fibrils, prominently and radiately rugose. Flesh white, medium (not thick), odorless and tasteless. Gills close, brown, adnate then slightly emarginate, edge serrulate. Stipe 5-6 cm x 4-9 mm, dingy (pale brown), apex white, no remnant of annulus, hollow, striate above, fibrillose, slightly enlarged at base. Spores brown, smooth, elliptical, $7.5-9 \times 3.8-4.5 \mu$. Cystidia on sides and edges, bottle-shaped, often slender pointed, or ventricose with slender point, $45-56 \times 9-12.6 \mu$.

Psathyrella lauricola Smith and Hesler

Pileus 1-2.5 cm. broad, obtuse to convex, the margin appressed at first, surface glabrous, not conspicuously striate, when moist "snuff brown" or more yellowish on the disk (sordid cinnamon to sordid ochraceous), the disk remaining tinged with ochraceous but the remainder soon grayish and finally blackish umber, hygrophanous, fading to sordid cinereous on the margin and buff on the disk, conspicuously atomate when fading; flesh very thin and fragile, odor and taste not distinctive; lamellae adnate, subdistant, broad, blackish brown, edges whitish; stipe 3-5 cm. long, 1.5-2 mm. thick, equal, white, sparsely fibrillose, tubular, rather firm.

Spores 8-10 x 4-5 μ , smooth, ellipsoid to subovoid, blackish brown in water mounts of fresh material, dark blackish to bister when revived in KOH, apical pore distinct, hyaline and lens-shaped; basidia 14-17 x 7-8 μ , with a short broad pedicel, four-spored, hyaline in KOH; pleurocystidia thin-walled, subcylindric, with broadly rounded apices, a few somewhat ventricose in midportion, (36) 44-62 (70) μ x 8-12 μ ; cheilocystidia similar to pleurocystidia but shorter and more typically fusoid-ventricose and with merely obtuse apices; gill-trama regular, of large cells rather irregularly arranged, pale brown to rusty brown in KOH; cuticle of vesiculose hyaline cells one cell deep or irregularly two cells deep, not organized into a palisade.

Habit, habitat and distribution: Cespitose on a laurel stub, Grassy Patch, Great Smoky Mountains National Park, Tenn., Sept. 1, 1938, L. R. Hesler and A. H. Smith 10793-type.

Discussion: There were no signs of a veil on buttons, but the scattered fibrils of the stipe in the more mature fruiting bodies may indicate that a rudimentary veil is at times present. According to the senior author's experience with other species, a veil would be expected here on at least some of the carpophores of a collection. This is one species of Psathyrella which has a spore deposit as black as that of most species of Coprinus, and under the microscope the spores are a bister rather than a chocolate brown when revived in KOH. Psathyrella lauricola differs from P. microsperma in spore size as well as in the color of the spores and in the size of the apical pore. From an inspection of the fresh fruiting bodies one might think that the fungus was nothing more than a form of Coprinus micaceus but the carpophores do not deliquesce (they were collected in wet weather and were mature). The microscopic characters will distinguish it at once. The paraphyses of P. lauricola are not typically coprinoid and since the pileus is not plicate the species cannot be referred to Pseudocoprinus although it appears to be related to that group by the very delicate flesh and spore characters.

Psathyrella madeodisca (Pk.) A. H. Smith

Pileus 3-5 cm. broad, campanulate-convex, not always expanding fully, broadly umbonate, hygrophanous, not viscid, "light buff" to "ochraceous buff" (dry), "cinnamon brown" (wet), glabrous, plush-like, slightly radiately rugose, margin striatulate (wet), even (dry), on drying (from center to margin) leaving for a time a dark band at margin.

Flesh thin, pallid, darker when wet; odor and taste mild.

Lamellae adnexed to emarginate, close to crowded, medium broad, linear, white at first, finally "drab" to "hair brown," edge fimbriate.

Stipe 4-8 cm. x 3-5 mm., whitish, apex pruinose and striate, elsewhere fibrillose, glabrescent, dry, hollow.

Veil white, delicate, scarcely copious, webby, soon breaking to leave a collapsed, median or superior, evanescent annulus.

Spores ellipsoidal, 7-9 x 3.5-4.5 μ , smooth, color in mass: "sooty black."

Pleurocystidia scattered, ventricose, bottle-shaped, at times subcapitate, 40-54 x 10-18 μ , projecting 20-25 μ , neck 8 μ diam.; cheilocystidia clustered, pyriform to balloon-shaped, 22-43 x 12-20 μ .

On humus, logs of oak, beech, etc., Knox, Anderson and Sevier (Park) Counties, Tennessee; and Swain County, North Carolina, May-November.



20812 - *Psathyrella madaeodisca* (Pk.) A.H. Smith

Psathyrella michiganensis Smith

Pileus 10-14 mm. broad, convex to conico-campanulate, obtusely umbonate, hygrophanous, "avellaneous" (dry), "olive brown" (wet), surface velvety, somewhat atomate, margin even (dry), striatulate (wet).

Flesh thin, fragile; odor mild, taste slightly of radish.

Lamellae rounded-adnate to emarginate and uncinata, broad, ventricose, medium-close, "verona brown," sprinkled with spores, edge even.

Stipe 2-2.5 cm. x 0.7-1.0 mm., apex pruinose, elsewhere glabrous, base sub-bulbous, dingy-brownish, hollow.

Spores 8-11 x 4.8-5.6 μ , ellipsoidal smooth, purplish in mass.

Cheilocystidia cylindrical to subglobose, capitate, 15-12 x 8-11 μ ; pleurocystidia none.

On sawdust, Anderson County, Tennessee, October.

See original description and figures in: Smith, A. H. Studies of North American Agarics - I. Contr. Univ. Mich. Herb. No. 5:35-36. 1941.

15918

PSATHYRELLA MICHIGANENSIS Smith

on saw-dust

Claxton School, Anderson Co., Tenn.

Coll.: L. R. Hesler, October 31, 1943

Det.: A. H. Smith

Pileus 10-14 mm broad, convex to conico-campanulate, obtusely umbonate, hygrophanous, avellaneous (dry), olive brown (wet), surface velvety, somewhat atomate, margin even (dry), striatulate (wet). Flesh thin, fragile; odor mild, taste slightly of radish.

Lamellae rounded-adnate to emarginate and uncinata, broad, ventricose, medium-close, Verona Brown, sprinkled with spores, edge even.

Stipe 2-2.5 cm x 0.7-1.0 mm, apex pruinose, elsewhere glabrous, base sub-bulbous, dingy-brownish, hollow.

Spores 8-11 x 4.8-5.6 μ , ellipsoidal smooth, purplish in mass. Cheilocystidia cylindrical to subglobose, capitate, 15-12 x 8-11 μ . Pleurocystidia none. On saw-dust, Anderson County, Tennessee, October.

Psathyrella piceicola Smith and Hesler

Pileus 2-3.5 cm. broad, conic, becoming broadly umbonate and campanulate to more or less expanded, surface with the marginal two-thirds radially rugulose and near the margin with concentric flattened scales from the remains of the heavy veil, glabrescent, dry (probably collected when faded), near cinnamon buff to honey color with the disk buckthorn brown, when dried the disk sordid tawny to reddish brown and the margin paler yellowish brown, the surface appearing as if varnished in some but no gelatinous layer present, margin appendiculate with the submembranous patches of veil tissue; flesh thick in the disk, abruptly thin outward, white, firm, odor strongly fungoid, taste mild and pleasant at first, finally bitterish; lamellae adnate, usually joined at the stipe, seceding, broad, close to crowded, warm sepia or slightly paler, edges whitish, ciliate; stipe 5-12 cm. long, 4-6 mm. thick, apex mealy, glabrous and shining to the midportion, lower down conspicuously lacerate-squamulose to scaly, equal or tapering upward, stuffed becoming hollow, rooting; veil heavy and fibrous.

Spores dark purple brown in mass, 12-15 (18) x 6-7.5 μ , narrowly ovoid to ellipsoid in front view, slightly inequilateral in side view, smooth, apiculus very distinct, apical pore very inconspicuous, when revived in KOH sordid cinnamon brown to pale bistre clouded with purple-brown in some; pleurocystidia abundant, 50-90 x 12-20 μ , ventricose and with greatly elongated necks and broadly rounded apices,

subcapitate in some, thin-walled, smooth, hyaline in KOH, a few with one or more knoblike projections or contorted prolongations; cheilocystidia narrowly ventricose to subcylindric or with flexuous walls at least in age, 50-80 x 7-12 μ , thin-walled, apices obtuse and often with adhering mucilage, hyaline to pale smoky yellowish brown in KOH, very abundant, gill trama of parallel hyphae, hyaline or faintly sordid yellowish in KOH; pileus trama of floccose interwoven hyphae, pale sordid yellowish in KOH; cuticle of a layer of vesiculose cells irregularly two to three cells deep, their walls pale cinnamon brown in KOH.

Habit, habitat and distribution: Subcespitose (2-3 in a cluster) on decayed spruce logs, Indian Gap, Tennessee, June 22, 1941, coll. S. L. Meyer (Hesler 13783-type).

Discussion: This species possesses a number of very distinctive characters. In the first place not many species in this genus inhabit the wood of conifers, and few of the lignicolous species have such large spores. These two characters in conjunction with the well developed veil make an unusual combination. Similar pleurocystidia are found in P. Barlae but in that fungus their apices are not as broadly rounded, and the colors of the fruiting bodies are very different. The color of the spores when revived in KOH approaches that which is characteristic of the genus Psilocybe.

15917

PSATHYRELLA PINICOLA Smith (Part of Type)

on pine chips
Claxton School, Anderson Co., Tenn.
Coll: L. R. Hesler, October 31, 1943
Det.: *A. H. Smith*

Pileus 2-3 cm broad, convex-expanded, hygrophanous, "cartridge buff" (dry), dark (wet), disc brownish (wet), atomate, margin even or striate (dry), striatulate (wet). Flesh thin, concolor or whitish; odor and taste fungoid.

Lamellae rounded-adnate, ventricose, broad, close, Neutral Gray, edge fimbriate.

Stipe 4-5 cm x 3-4 mm, whitish, apex pruinose, elsewhere glabrous, flexuous, hollow.

Spores 9-12.8 x 5-6.5 μ , ellipsoidal, sub-inequilateral, smooth, dark-brown (under microscope), purplish in mass. Pleurocystidia none; cheilocystidia cylindrical, 30-53 x 11-13 μ . The type is in Univ. Mich. Herbarium.

Psathyrella Rooseveltiana Murrill

Murrill's description (Lloydia 5:155. 1942):

"Pileus campanulate, umbonate, gregarious, 1 x 1 cm.; surface dry, glabrous, radiate-sulcate, uniformly pale-avellaneous tinged with old-rose, margin straight, entire, sulcate; context very thin, pallid; lamellae adnate, broad, distant, entire, with white edges; spores ellipsoid, truncate, smooth, black, opaque, about 17 x 10 μ ; stipe very slender, equal, smooth, glabrous, pale reddish-brown, 5-7 cm. long, less than 1 mm. thick.

"Type collected by W. A. Murrill in sandy soil on an exposed grassy road shoulder at Camp Roosevelt, Marion Co., Fla., Sept. 27, 1941 (F 18555). Not known from elsewhere. The abrupt, slender umbo suggests a small handle on a large bell. The spores appear truncate because of a hyaline apical germ-pore."

Psathyrella rugocephala (Atk.)

Pileus 4-5 cm. broad, convex, "clay color" to "tawny-olive," not viscid, not hygrophanous, radiately rugose, margin crenate-appendiculate.

Flesh medium thick, whitish; odor mild, taste bitter.

Lamellae adnate to emarginate, crowded, "smuff brown," edge whitish-fimbriate, medium broad.

Stipe 7-8 cm. x 8-10 mm., dingy, dry, equal, hollow.

Veil white-fibrillose, leaving an evanescent, superior ring.

Spores "dark mouse gray" in mass, 9-10 x 6-6.5 μ , black under 'scope, rough-tuberculate, lemon-shaped.

Pleurocystidia few 40-50 x 9-16 μ , clavate-cylindric; cheilocystidia clustered, numerous, clavate-cylindric 50-60 x 9-12 μ .

On soil, University Campus, Knox County, Tennessee,
October.

16580 PSATHYRELLA RUGOCEPHALA (Atk.) Sm.

on soil, University campus
Knoxville

Coll. and Det.: L. R. Hesler, Oct. 7, 1944

Pileus 4-5 cm broad, convex, clay color to tawny-olive, not viscid, not hygrophanous, radiately rugose, margin crenate-appendiculate. Flesh medium thick, whitish; odor mild, taste bitter.

Lamellae adnate to emarginate, crowded, snuff brown, edge whitish-fimbriate, medium broad.

Stipe ~~7~~/~~7~~ 7-8 cm x 8-10 mm, dingy, dry, equal, hollow. Veil white-fibrillose, leaving an evanescent, superior ring.

Spores dark mouse gray in mass, ϕ 9-10 x 6-6.5 μ , black under microscope, rough-tuberculate, lemon-shaped. Pleurocystidia few 40-50 x 9-16 μ , clavate-cylindric; cheilocystidia clustered, numerous, clavate-cylindric 50-60 x 9-12 μ .

Psathyrella rugoproxima (Parker) A. H. Smith

Pileus 4-5 cm. broad, "marguerite yellow," hygrophanous, convex, umbonate, margin upturned at maturity, atomate, not viscid, radially rugose.

Flesh thin, white; odor and taste fungoid.

Lamellae adnate, narrow, crowded, "light drab" (mature).

Stipe 8-10 cm. x 4-5 mm., white, shining, twisted, striate, apex floccose, elsewhere glabrous, flexuous, dry, hollow.

Spores 8-9.5 x 4-5.5 μ , ellipsoidal, smooth, color in mass: "blackish brown(1)".

Pleurocystidia none; cheilocystidia clustered, clavate, 32-40 x 12-15 μ .

On humus, frondose woods, Anderson County, Tennessee, July.

17633

PSATHYRELLA RUGOPROXIMA (Parker) A. H. Smith

in humus, woods

Claxton School

Coll.: R. M. Boarts, July 4, 1946

Det.: A. H. Smith

Pileus 4-5 cm broad, "Marguerite yellow," hygrophane, convex, umbonate, margin upturned at maturity, atomate, not viscid, radially rugose. Flesh thin white; odor and taste fungoid.

Lamellae adnate, narrow, crowded, "light drab" (mature).

Stipe 8-10 cm x 4-5 mm, white, shining, twisted, striate, apex floccose, elsewhere glabrous, flexuous, dry, hollow.

Spores 8-9.5 x 4-5.5 μ , ellipsoidal, smooth, color in mass: "blackish brown (1)." Pleurocystidia none; cheilocystidia clustered, clavate, 32-40 x 12-15 μ .

12294

PSATHYRELLA SPADICEA (Fr.) Singer

PHOTO

on oak tree (base)
Highlands, N.C., August 28, 1939

Pileus 1.5-4 cm, convex, tiller buff, seashell pink, or pale cinnamon pink (R.), not hygrophanous, dry, glabrous or with fine, scattered white fibrils (under lens), margin even. Flesh pallid-whitish, medium thin, firm; odor slight, taste slight.

Lamellae adnate, seceding, vinaceous fawn to fawn (R.) when mature, white when young, close, rounded behind, narrow in front, edge tufted-fimbriate.

Stipe 2-5 cm x 3-5 mm, concolor to pileus or whitish, scattered fibrillose, apex floccose, hollow, very cartilaginous-brittle.

Spores 7-8 x 4-4.5 μ , elliptical, smooth; color in mass: pale rhodonite pink to corinthian pink. Cystidia numerous on sides, 45-63 x 16 μ , bottle-shaped. Sterile cells on edges, clustered, numerous, 50-110 x 10-20 μ .

Psathyrella spadiceogrisea (Fr.) A. H. Smith

Pileus 3-6.5 cm. diam., not atomate, conical when young, then convex to expanded, broadly umbonate, not viscid, hygrophanous, "light buff" to "pinkish buff" (dry), "cinnamon brown" (wet), glabrous, radiately rugose, from the first, margin striate.

Flesh thin, rather fragile, whitish; odor none, taste mild or none.

Lamellae adnate-decurrent, pale, soon "avellaneous," finally "chestnut brown," close, linear but slightly broadest and rounded behind, edge serrate.

Stipe 5-9 cm. x 2-5 mm., white, striate, slightly fibrillose, glabrescent, mealy at apex, dry, equal, often curved, strigose and sub-bulbous at base, hollow.

Veil white, copious when young, evanescent, no remnants on margin of pileus.

Spores 7-9 x 3.8-4.5 μ , elliptic to inequilateral, brown (under microscope), purple-brown in mass (not matched in Ridgway).

Pleurocystidia scattered, flask-shaped; cheilocystidia clustered, variable in shape (some appear rough at apex).

On humus, frondose woods, Knox County, Tennessee, March-April.

11208 PSATHYRELLA SPADICEOGRISEA (Fr.) Maire

roadside, under apple
Rich Mt., Blount Co., Tenn.
Coll: L. R. Hesler, March 20, 1938

Pileus 3-4 cm broad, convex, hygrophanous, atomate, glabrous, bister, mummy brown, raw umber (R.), when wet; whitish (when dry), margin striatulate (wet). Flesh thin, whitish.

Lamellae adnate, sub-decurrent, about bister (R.), sub-ventricose, close, edge serrulate.

Stipe 5-7 cm x 4-5 mm, white, apex white-mealy, basal portion with scattered brownish fibrils, hollow, slightly striate, equal or tapering downward, dry, whitish mycelioid at extreme base. Veil white, delicate, evanescent, shreds hanging from margin for a time.

Spores 7-8 x 3.2-4 μ , elliptical to sub-reniform, color in mass not matched (see spore print). Pleurocystidia scattered, ventricose, pyriform, 40-45 x 16-22 μ ; cheilocystidia pyriform, 22-27 x 12-18 μ .

11903

PSATHYRELLA SPADICEOGRISEA Maire

in humus, deciduous woods

Carter's Mill, Knox Co., Tenn.

Coll: L. R. Hesler & A. J. Sharp, March 30, 1939

Pileus 3-6.5 cm diameter, not atomate, conical when young, then convex to expanded, broadly umbonate, not viscid, hygrophanous, "light buff" to "pinkish buff" (dry), "cinnamon brown" (wet), glabrous, radiately rugose, from the first, margin striate. Flesh thin, rather fragile, whitish; odor none, taste mild or none.

Lamellae adnate-decurrent, pale, soon "avellaneous," finally "chestnut brown," close, linear but slightly broadest and rounded behind, edge serrate.

Stipe 5-9 cm x 2-5 mm, white, striate, slightly fibrillose, glabrescent, mealy at apex, dry, equal, often curved, strigose and sub-bulbous at base, hollow. Veil white, copious when young, evanescent, no remnants on margin of pileus.

Spores 7-9 x 3.8-4.5 μ , elliptic to inequilateral, brown (under microscope), purple-brown in mass (not matched in Ridgway). Pleurocystidia scattered, flask-shaped; cheilocystidia clustered, variable in shape (some appear rough at apex).

11984

PSATHYRELLA SPADICEOGRISEA (Fr.) Maire

in humus, woods

U. T. Farm, Knoxville, Tennessee

Coll: L. R. Hesler, April 2, 1939

Det: L.R.H.

Pileus 2-3 cm diameter, convex-conical, hygrophanous, pale pinkish buff (dry), watery brown (wet), rugulose, striate, dry, atomate, margin striate. Flesh thin, white.

Lamellae adnate, broad, edge white-fimbriate, close.

Stipe 3-7 cm x 2-3 mm, white, shining, tubular, apex mealy.

Spores elliptical, 8-9 x 3.6-4.5 μ . Pleurocystidia scattered, few; cheilocystidia abundant.

on sphagnum, Tsuga and Abies bog, Lake St. Peter,
Ontario, Canada, leg. R. H. Petersen, Aug 4, 1962
(labelled Stropharia albonitens)

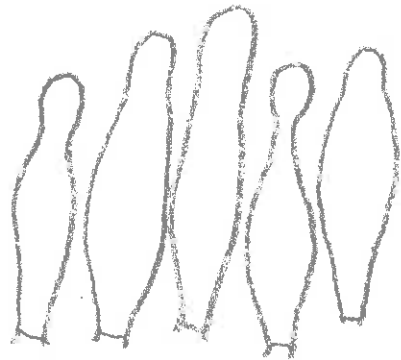
Notes by Hesler

Spores $8.5 - 10 \times 4-5\mu$, slender, slightly inequilateral in profile, ellipsoid in face view, germ pore not observed, smooth, brownish with a faint purplish tint. Pl $34-57 \times 7-12\mu$, ventricose, more or less capitate and 9-pin-shaped, scattered but rather conspicuous; ch $20-32 \times 7-11\mu$, of two general types: (a) similar to pl, (b) subpyriform-vesciculose, or ventricose. Pileus cuticle of vesciculose to subellipsoid, 2-3 cells thick. Stipe cuticle of dry, repent hyphae. Caulo none found.

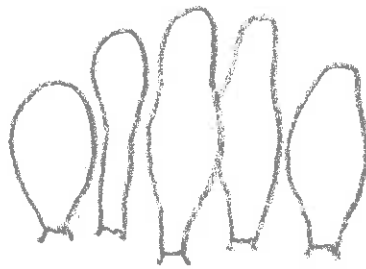
This is excluded from Stropharia by the structure of its pileus cuticle, lack of chrysocystidia. Smith (in N.A. Species of Psathyrella) regards Stropharia psathyroides Lange as a synonym of P. sphagnicola. (Note: I might be more certain of identification if I had notes on the ~~fresh~~ fresh condition.)

Pratyella sphaericola (Maire) Fave (?)

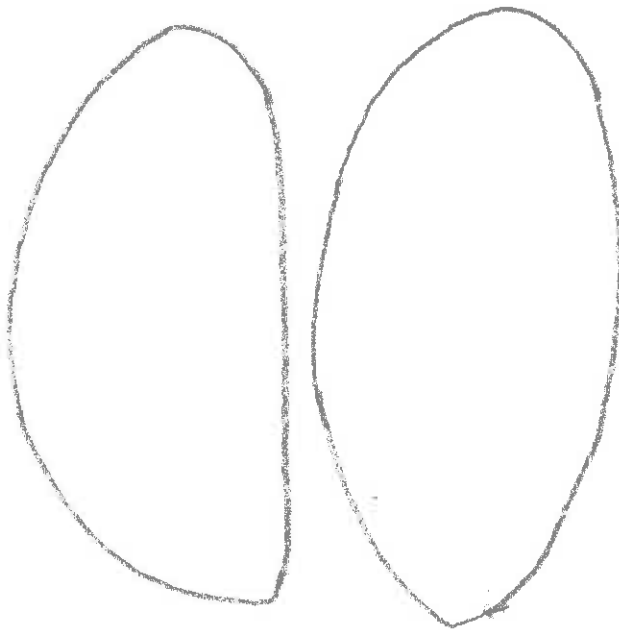
27670



Sp x 1000



Ch x 1000



Eggs x 8000

15892 ' PSATHYRELLA SQUAMOSA (Karsten) Moser

on soil, mixed woods
Grassy Patch, GSMNP
Coll.: L. R. Hesler, August 8, 1943

Pileus 2 cm broad, convex-campanulate, obtusely umbonate, pale pinkish buff, disc pinkish buff, entire surface lanuginose, hairs coarse, margin appendiculate. Flesh thin, white, odor mild.

Lamellae broadly adnate to adnexed, seceding pale brownish drab, edge crenulate, medium broad, close.

Stipe 5 cm x 3 mm, dry, white-shining, glabrous, apex mealy, hollow, fragile.

Spores 8-9 x 5-5.5 μ , ellipsoid, smooth, purple-brown (under microscope). Pleurocystidia and cheilocystidia abundant, colorless, 54-60 x 7-9 μ , ventricose-subcylindric, base blunt, apex somewhat pointed. Veil appendiculate, fugacious.

10380

PSATHYRELLA SUBLATERITIA Smith

on soil, under elm
near campus, Univ. of Tenn., Knoxville, Tenn.
May 19, 1937
Coll.: L. R. Hesler
Det.: A. H. Smith

Pileus cespitose or subcespitose 2-7 cm broad, convex then convex-expanded, hemispherical when very young, broadly umbonate, not hygrophanous, dry, glabrous or silky fibrillose, surface becoming irregularly cracked (in some) micaceous, margin color variable:
even,/"cream-buff," "warm buff," "pale ochraceous buff," "pale cinnamon pink," "warm sepia" to "bister," margin paler, often nearly white, disc darker. Flesh whitish, often appearing partially water-soaked, thin; odor and taste slight.

Lamellae adnate, becoming adnexed, seceding somewhat, white at first, becoming "cinnamon-drab," "fawn color," or "sorghum brown", faces often white-frosted, close to crowded, many shorter ones of 3 ranks, up to 5 mm broad behind, narrowed in front, edge crenulate and often white flocculose.

Stipe 3-9 cm x 4-6(12) mm, white, at times becoming tinged brownish, cartilaginous, apex white-mealy, fibrillose-striate, equal or slightly attenuated, bases often connate, erect or curved from being crowded, stuffed then hollow.

Spores 7.5-9(10.8) x 4.5-5.3(6.3) μ , elliptical, majority slightly curved, purple-brown under microscope, color in mass: "natal brown," "sorghum brown," "army brown," or "mahogany red." Basidia 4-spored, 28-32 x 9-10 μ .

over

Pl 36-54 x (11)14-20 μ , flask-shaped to bottle-shaped,
protruding about 16-25 μ ; ch similar. Veil not observed;
if present, it is evanescent and disappears early.

11403

PSATHYRELLA SUBLATERITIA Smith

on soil, under elm
near campus, Knoxville
May 17, 1938

Pileus 3-7 cm broad, not micaceous. Stipe up to 12 mm
diameter. Cystidia up to 40 x 18 u, apex often crested.

Otherwise similar to #10380.

12941

PSATHYRELLA SUBBATERITIA Smith

PHOTO

base of elm stump
Knoxville (Rose Avenue)
Coll.: A. J. Sharp
Det.: L. R. Hesler, October 28, 1940

Pileus cespitose (in clusters of 20-40 basidiocarps),
3-6 cm broad, convex-expanded.

Stipe 6-9 cm x 5-10 mm, tubular.

Spores 8-9 x 4-4.5 μ ; color in mass: Army Brown to
Sorghum Brown (R.). Cystidia scattered on sides, clustered
on edges: 45-54 x (11)14-18 μ , usually broader on sides
than on edges.



Psathyrella sublenticula Sm
 12941 - ~~*Psathyrella sarcoccephala* (Fr.) Gill.~~ *Singer*

18339

PSATHYRELLA SUBLATERITIA Smith

on lawn under elm

Knoxville

Coll. & Det.: L. R. Hesler, Nov. 14, 1947

Pileus 4-6.5 cm, "pale cinnamon-pink," "pale ochraceous-buff."

Lamellae adnate, adnexed, seceding, close, "light vinaceous-cinnamon," "light pinkish cinnamon."

Spores 8-9.5 x 4.5-5 μ ; color in mass: "sorghum brown" to "army brown." Pleurocystidia and cheilocystidia similar, ventricose, 43-52 x 13-20 μ . Cells on surface of pileus, forming a palisade, balloon-shaped or pyriform, 27-56 x 16-22 μ .

18948 PSATHYRELLA SUBLATERITIA Sm.

Soil, under maple, Knoxville, May 11, 1949

Pileus 3-6 cm, convex-expanded, "snuff brown" (wet), pale buff (dry), moist, hygrophanous, not viscid, glabrous, even. Flesh pallid, medium thick on disc, thin on margin; odor and taste slight.

Lamellae rounded-adnate, ventricose, rather broad, crowded, edge fimbriate, color at maturity "wood brown."

Stipe 5-6 cm x 8-11 mm, connate at base, white, mealy at apex, equal, dry, hollow-stuffed.

Spores 8-9.6 x 4.5-5.5 μ , ellipsoidal, smooth, pale brown under microscope, color in mass: "natal brown."
Pleurocystidia scattered, ventricose, 41-48 x 9-16 μ ;
cheilocystidia clustered, clavate-cylindrical, 33-41 x 9-13 μ .

Caespitose, cluster of about 10 sporophores.

19556

PSATHYRELLA SUBLATERITIA Smith

base of elm, Knoxville (Lake Avenue)

Coll.: L. R. Hesler

Det.: Smith, November 29, 1949

Pileus 2-3.5 cm broad, hemispherical, moist, hygrophanous, "cartridge buff," disc "clay color," often with a central black spot, glabrous (appearing minutely velvety under lens, margin slightly floccose). Flesh white, cartilaginous; odor sub-alkaline, taste slight.

Lamellae adnate to emarginate, near "cartridge buff," close, broad behind, narrowed in front, edge denticulate-flocculose.

Stipe 4-7 cm x 10-12 mm, conspicuously streaked longitudinally, very brittle, white-floccose throughout, densely so at apex, hollow. Veil none (or very slight, if present).

Spores 8.5-10 x 5-6 μ , pale brown (under microscope), ellipsoidal, smooth. Pleurocystidia scattered, fusiform, apex crested, 48-64 x 12-19 μ ; cheilocystidia variable: clavate, cylindric, often with undulating sides, densely clustered, 64-96 x 12-16 μ . Surface of pileus composed of a palisade of pyriform cells. Caespitose.



20854 - *Psathyrella sublateritia* Sm.
~~*Psathyrella sarcoccephala* (Fr.) Gill~~



21363 - *Psathyrella sublateritia* Sm. - x $\frac{7}{8}$

15919

PSATHYRELLA SUBSERICEA Smith

on soil, lawn, under oak
Knoxville

Coll.: L. R. Hesler, October 29, 1943

Det.: A. H. Smith

Pileus 1-2 cm broad, convex, dry, pallid, disc tinted tawny, not hygrophanous, appearing glabrous but silky under lens, not atomate, margin striate. Flesh thin, fragile; odor and taste mild.

Lamellae rounded-adnate, broad, ventricose, close, edge fimbriate, Light Mouse Gray to Mouse Gray (R.).

Stipe 2-4 cm x 2-4 mm, white-shining, apex pruinose, elsewhere glabrous, hollow, dry, tapering downward or equal.

Spores 9.5-11 x 4.7-5 μ , elliptical-pyriform, purplish-black in mass. Pleurocystidia scattered, bottle-shaped, 40-48 x 9-12.8 μ ; cheilocystidia similar, clustered.

Psathyrella subvolvata Smith and Hesler

Pileus 2.5 cm. broad, obtuse, becoming broadly subumbonate, surface appearing dry because of a dense covering of innate long white fibrils which become aggregated into fascicles around the disc, the margin incurved and striatulate at first beneath the fibrils, more or less glabrescent part way to disc in age, entirely white at first (beneath the fibrils) but becoming tinged umber as the spores mature; flesh fragile, white, hygrophanous, odor and taste not distinctive; lamellae close and broad (\perp 5 mm.), shallowly adnexed, white, slowly becoming "benzo brown" (a dull purplish brown), edges slightly paler and nearly even; stipe 2.5 cm. long, 3 mm. thick, equal except for the subbulbous base, white, hollow, bulb surrounded by a white mass of fibrils which almost form a volva, densely fibrillose over lower half, pruinose above.

Spores 6-7.5 x 3-3.5 μ , smooth, oblong in face view, curved to somewhat bean-shaped in side view, pale chocolate brown in KOH, apical pore very inconspicuous; basidia four-spored, 16-19 x 6-6.5 μ , hyaline in KOH, slightly clavate, bases not conspicuously narrowed; pleurocystidia abundant, 28-36 (40) x 10-12 (14) μ , ventricose but with only a short neck and obtuse to broadly rounded apex, hyaline in KOH; cheilocystidia similar to pleurocystidia or merely clavate, both types hyaline in KOH and thin-walled; gill trama of narrow parallel hyphae, hyaline in KOH; pileus trama of compactly interwoven hyphae, hyaline in KOH; cuticle of hyaline

vesiculose cells in a layer irregularly two to three cells deep or if cells very large (60 x 40 μ or more) only one cell deep, hyaline, filamentose hyphae 6-10 μ in diameter originating in the cuticle and remaining appressed over the surface.

Habit, habitat and distribution: Single on soil beside a trail, Indian Camp Creek, Great Smoky Mountains National Park, Tennessee, Aug. 30, 1938, L. R. Hesler and A. H. Smith 10660-type.

Discussion: Although known only from a single specimen this species is so distinctive that it should be placed on record. It appears to be most closely related to P. epimyces, but differs in its smaller spores (7-9 x 4-5 μ in P. epimyces), habitat (which in this case appears to be a very important difference), and much more slender stipe. Psathyrella epimyces may appear to be volvate at times because of the manner in which the veil breaks. The characters which place P. subvolvata close to P. epimyces are the obtuse cystidia, the well developed white veil which is more or less innate, and the manner in which the veil breaks. When more material of P. subvolvata is obtained it will very likely show some variation in the manner in which the veil remnants are distributed around the base of the stipe or over its lower portion so we do not believe it justifiable to insist that the species is typically volvate. Psathyrella subvolvata appears close to the P. lacrymabunda group by virtue of its spores and pleurocystidia. It resembles P. insignis in some respects, but the veil is more copious and loosely organized, and the manner in which the remnants are distributed around the bulbous base of the stipe suggest a development comparable to that of species of Bulbopodium in Cortinarius, a feature which at once distinguishes it from any other Psathyrella known to us. This type of development, however, is not uncommon among the small sylvan species of Coprinus with somewhat granulose universal veils.

Psathyrella velutina (Fr.) Konrad ~~and~~⁺ Maublanc

Pileus (2) ⁴⁻⁹~~3-8~~ cm. broad, conic-convex, broadly umbonate, disk "chamois," elsewhere "cinnamon brown," "cinnamon buff," to "clay color," marginal third at times "Isabella color" to "tawny olive," disk darker, neither viscid nor hygrophanous, appressed fibrillose, at times somewhat scaly, radiately rugose, margin decorated with veil-remnants.

Flesh medium, of three layers: upper and lower brown, middle layer white, firm; odor slightly pungent, strong; taste mild to bitter.

Lamellae adnate to adnexed, broad, scarcely reaching margin, ventricose, broadest and rounded behind, close, "wood brown," then "light seal brown" to "dusky brown" or "bister," edge white-floccose.

Stipe ⁸⁽¹¹⁾~~3-6~~ cm. x ¹⁵~~4-8~~ (13) mm., subequal, slightly enlarged at base and apex, apex white and floccose or mealy, brown below, brownish fibrillose-scaly, dry, hollow.

Veil white, cottony-fibrillose, ring evanescent, appendiculate on margin of pileus.

Spores 9-11 (12) x 6-6.5 (8) μ , elliptical to lemon-shaped, ^{coarsely warty tuberculate-warty,} apiculate, ^{rough,} color in mass: "dusky purplish gray" to "blackish slate."

Pleurocystidia scattered, at times few or none, cylindric-clavate, 40-56 x 12-16 μ ; cheilocystidia clustered, cylindric-clavate, 40-64 x 9-14 μ .

On soil, frondose woods, Knox and Anderson Counties, Tennessee, June-November.

11495 PSATHYRELLA VELUTINA (Fr.) Sing. var. VELUTINA

on soil, Campus, Univ. of Tenn., Knoxville
Coll.: A. J. Sharp, June 14, 1938
Det.: A. H. Smith

Pileus (2)3-8 cm broad, conic-convex, broadly umbonate, disc "chamois," elsewhere "cinnamon brown," "cinnamon buff," to "clay color," marginal third at times "Isabella color" to "tawny olive," disc darker, neither viscid nor hygrophanous, appressed fibrillose, at times somewhat scaly, radiately rugose, margin decorated with veil-remnants. Flesh medium, of three layers: upper and lower brown, middle layer white, firm; odor slightly pungent, strong; taste mild to bitter.

Lamellae adnate to adnexed, broad, scarcely reaching margin, ventricose, broadest and rounded behind, close, "wood brown," then "light seal brown" to "dusky brown" or "bister," edge white-floccose.

Stipe 3-6(9) cm x 4-8(13) mm, subequal, slightly enlarged at base and apex, apex white and floccose or mealy, brown below, brownish fibrillose-scaly, dry, hollow. Veil white cottony-fibrillose, ring evanescent, appendiculate on margin of pileus.

Spores 9-11(12) x 6-6.5(8) μ , elliptical to lemon-shaped, apiculate, rough, color in mass: "dusky purplish gray" to "blackish slate." Pleurocystidia scattered, at times few or none cylindric-clavate, 40-56 x 12-16 μ ; cheilocystidia clustered, cylindric-clavate, 40-64 x 9-14 μ .

18914 - *Psathyrella velutina* (Fr.) Kon. + Moubl.

18983

PSATHYRELLA VELUTINA (Fr.) Singer var. VELUTINA

on bare soil, woods
Claxton School, Anderson Co.
Coll.: L. R. Hesler, June 18, 1949
Det.: L. R. Hesler

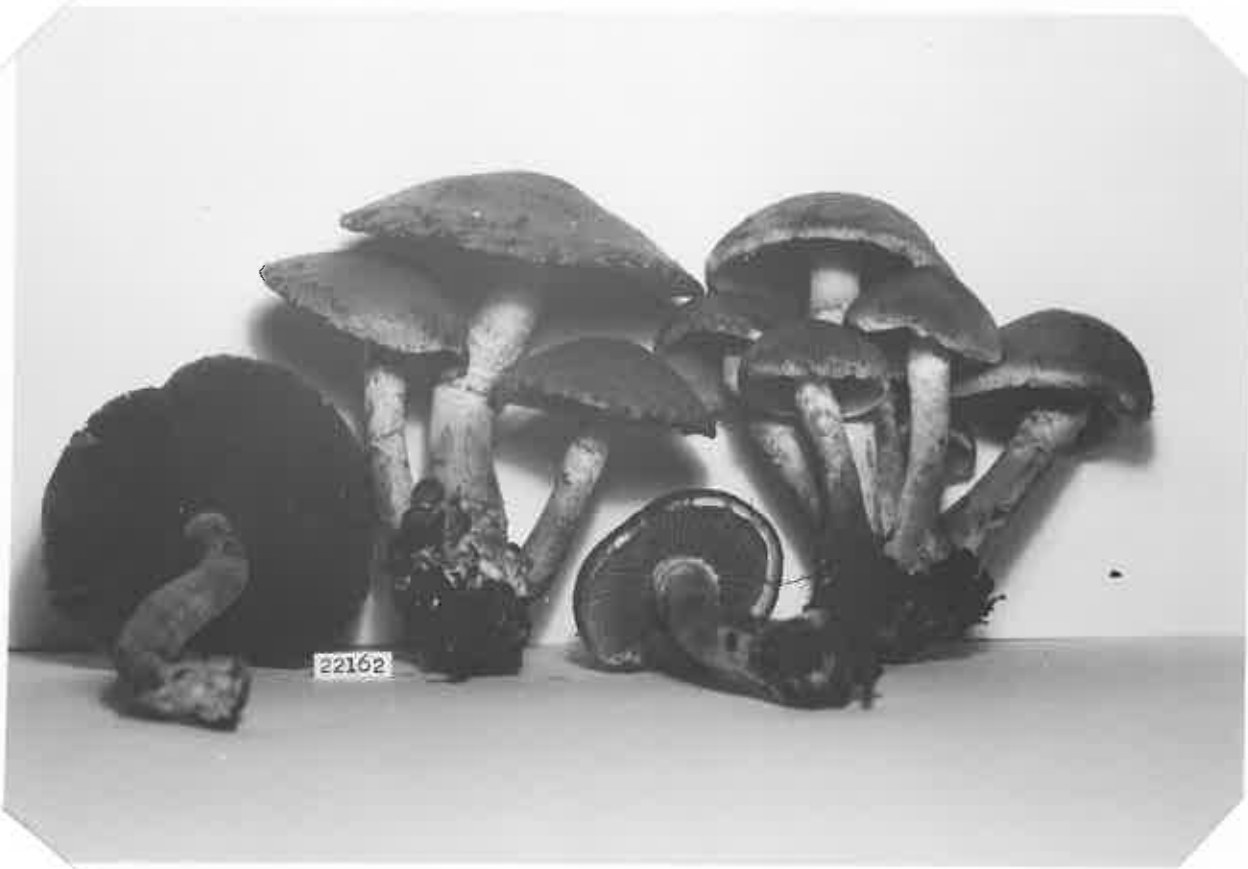
Pileus 20-25 mm, convex-conic, expanding, somewhat, "tawny-olive," densely fibrillose to fibrillose-scaly, dry, margin even, white-appendiculate. Flesh thick, firm, white; odor and taste mild. Lamellae rounded-adnate, narrowly attached, close, medium broad, narrowed in front, "Marguerite yellow" when young, finally near "wood brown" but with a purplish tint, edge white fimbriate, with or without beaded drops. Stipe 2.5-4 cm x 5-7 mm, dingy brownish, dry, with dark fibrils up to floccose, evanescent annulus, hollow. Veil thick, white, cottony. Spores 8-10.5 x 5-7 μ , ovoid-ellipsoid to sub-limoniform, apiculate, rough, color in mass: "dark mouse gray." Pleurocystidia scattered, often in 2's or 3's or more in a cluster, cylindric, 42-64 x 9.5-12 μ ; cheilocystidia clustered, cylindric, subcapitate, 48-80 x 10-13 μ .



21663 - *Psathyrella velutina* (Fr.) Kon. & Maubl.



18914 - *Psathyrella velutina* (Fr.) Kon. + Maubl.



22162 - *Spathyrella velutina* (Fr.) Kon. + Maubl.



19266 - *Spathepella velutina* (Fr.) Kon. & Maubl.



19824 - *Paddyrella velutina* (Fr.) Singer



19824 - *Spathyrella velutina* (Fr.) Singer

6
40038

PSATHYRELLA VELUTINA (Fr.) Sing.
~~RANGELIUS~~

On Sharp's lawn, Knox Co., leg. A.J. Sharp, October 24, 1975.

Pileus 2-5 cm broad, hemispheric, expanding convex, dry, densely fibrillose-rivulose-scaly, the fibrils in strands, reddish brown, margin even. Context pallid, thin, pliant; odor mild, taste fungoid-unpleasant.

Lamellae adnexed, close or nearly subdistant, broad, "carob brown", edges white, no forking, lamellulae short, numerous.

Stipe 3.5-7 cm long, 2-5 mm thick, pallid, with numerous reddish brown fibrillose strands (as on pileus), dry, equal or tapering slightly upward, becoming tubular. Veil not seen, but remnants on upper stipe as more or less of a ring.

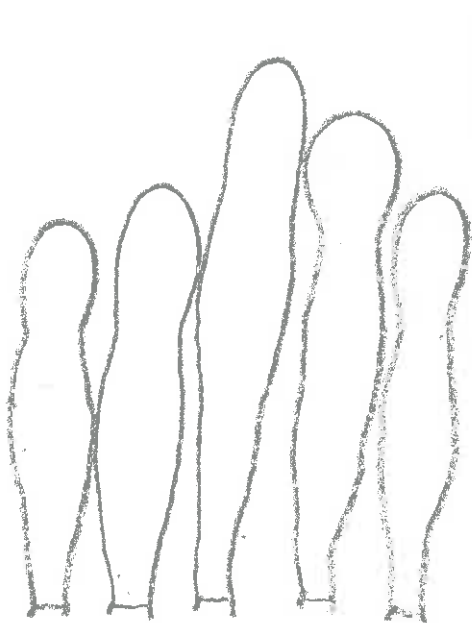
Spores in deposit "bluish-black", 8-9.5 x 5.5-6 μ , dark reddish brown in 2% KOH, rather coarsely warty, more or less sublimoniform to ellipsoid, usually with a "nose", some truncate. Pleurocystidia 52-72 x 9-12 μ , subclavate-ventricose, more or less capitate, rather numerous, very conspicuous; cheilocystidia similar, 36-62 x 9-13 μ , in large tufts. Pileus cuticle a palisade of large cells, 24-38 x 8-17 μ , clavate, cuneiform, fusoid, the surface bearing strands of somewhat incrustated brown, hyphae which are (in section) prostrate or more or less erect. Pileus trama of broad, radially-disposed hyphae.

cf. 40043 in which pl are sparse + smaller.

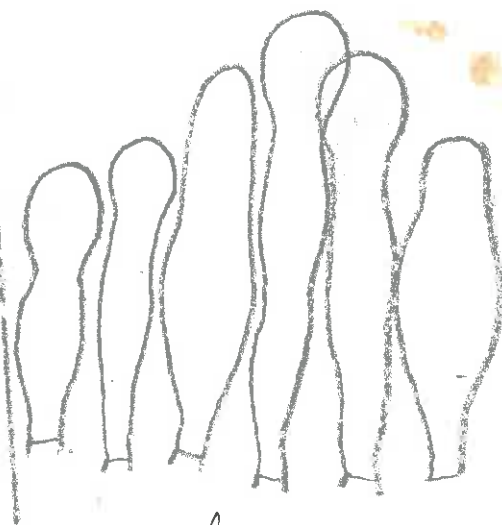
H0036

~~Isaiahyella~~
~~Isaiahyella~~

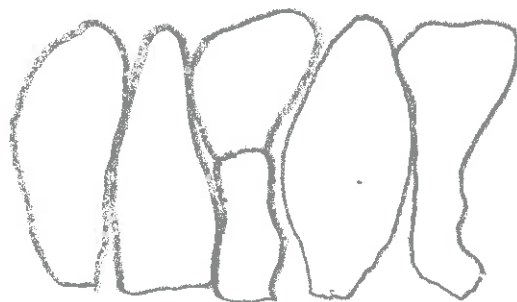
Isaiahyella velutina (Fr.) Smig.



Pl x 1000



Ch x 1000



Pileus cuticle x 1000

PSATHYRELLA VELUTINA (Fr.) Sing.

40043

~~PSATHYRELLA~~
~~PSATHYRELLA~~

On lawn, Sharp's, Tobler Rd., Knox Co., October 30, 1975.

Pileus 2.5-4.5 cm broad, convex, expanded-convex, hygrophanous, when dry central portion brownish, marginal area near "light drab", when wet "hair brown", densely fibrillose, the disc fibrillose-scaly, margin even. Context dingy pallid, fragile; odor mild, taste slightly stringent.

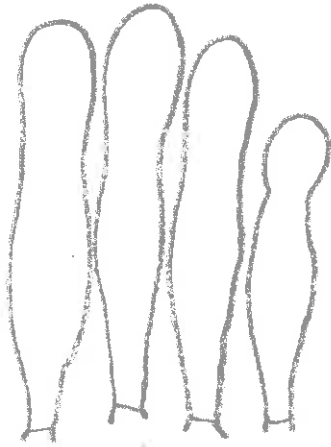
Lamellae narrowly attached, "dark vinaceous drab" or darker, more or less mottled, close, broad, ventricose, edges pallid.

Stipe 7-10 cm long, 5-8 mm thick, white, fibrillose, the fibrils white soon blackish from spores, dry, equal, hollow. Veil white, soon blackish from spores, leaving an evanescent superior, annular zone on stipe.

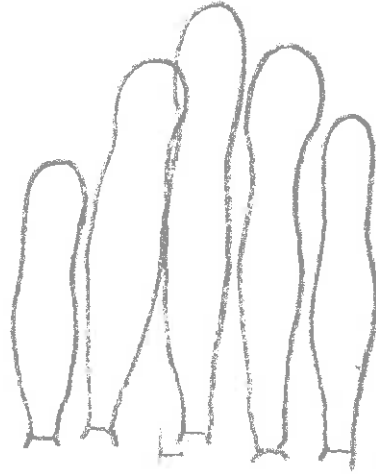
Spores blackish in deposit, 8-10 x 5.5-6.5 μ , dark reddish brown in 2% KOH, warty more or less sublimoniform to ellipsoid, stem with a "nose". Pleurocystidia 38-54 x 8-10 μ , ventricose, more or less capitate, very sparse; cheilocystidia 34-58 x 8-10 μ , similar abundant. Pileus cuticle of cuneate to irregularly-shaped cells, 25-40 x 16-22 μ , colorless, bearing brown, incrustated hyphae on surface.

Cf. 40036, same taxon, but pleurocystidia very sparse, often absent in sections), and smaller.

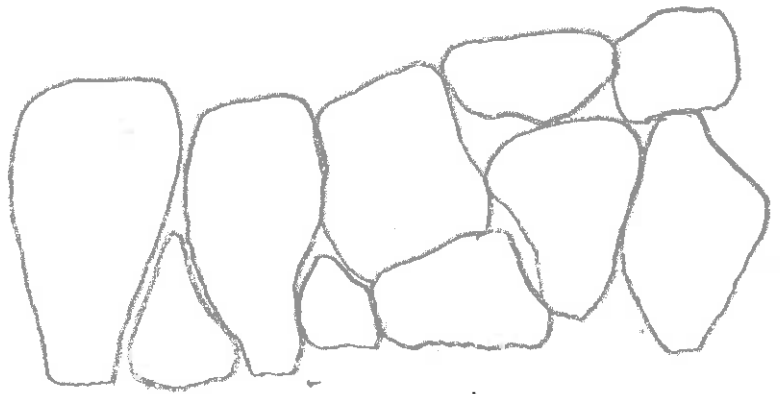
~~Psathyrella~~ *Psathyrella velutina* (Fr.) Sing.
40043



Sp $\times 1000$



Ch $\times 1000$



Pileus cuticle $\times 1000$

Psathyrella vestita Pk.

Pileus 1-2.5 cm. broad, atomate, "pale olive-buff" when young, at maturity "pale smoke gray," disk "olive-buff," not viscid, somewhat hygrophanous, white woolly-floccose when fresh (early morning), soon collapsed and inconspicuous, margin even, appendiculate at first.

Flesh fragile, thin, pallid; odor slight, taste mild.

Lamellae adnexed, white, finally "mouse gray," medium broad to broad, slightly ventricose, close, edge fimbriate.

Stipe 2-3 cm. x 2-3 mm., white, dry, apex floccose, elsewhere glabrescent and shining, equal, hollow.

Spores 9-11 x 5.5-6.5 μ , ellipsoidal, smooth, "deep mouse gray" in mass.

Pleurocystidia sub-cylindrical to ventricose or bottle-shaped, 48-56 x 12-16 μ ; cheilocystidia cylindrical to sub-cylindrical, at times irregular, 40-52 x 8-12 μ .

On grassy soil, low, open woods, Knox County, Tennessee, May.

17964

PSATHYRELLA VESTITA (Pk.) Smith

on grassy soil, low open woods
Knoxville (Tyson Park)
Coll.: L. R. Hesler, May 24, 1947
Det.: A. H. Smith

Pileus 1-2.5 cm broad, atomate, "pale olive-buff" when young, at maturity "pale smoke gray," disc "olive-buff," not viscid, somewhat hygrophanous, white woolly-floccose when fresh (early morning), soon collapsed and inconspicuous, margin even, appendiculate at first. Flesh fragile, thin, pallid; odor slight, taste mild.

Lamellae adnexed, white, finally "mouse gray," medium broad to broad, slightly ventricose, close, edge fimbriate.

Stipe 2-3 cm x 2-3 mm, white, dry, apex floccose, elsewhere glabrescent and shining, equal, hollow.

Spores 9-11 x 5.5-6.5 μ , ellipsoidal, smooth, "deep mouse gray" in mass. Pleurocystidia sub-cylindrical to ventricose or bottle-shaped, 48-56 x 12-16 μ ; cheilocystidia cylindrical to sub-cylindrical, at times irregular, 40-52 x 8-12 μ .

Psathyrella No. 3054

Pileus 2-3 cm. broad, grayish-tawny (not matched), hygrophanous (darker when wet), velvety under lens, dry, radiately rugulose and pitted, margin even when dry, spuriously striatulate when wet.

Flesh thin, fragile; odor none, taste mild.

Lamellae adnate-decurrent, close, medium broad, ventricose, "hair brown," edge denticulate, at times reddish brown (from spores?).

Stipe 3-4 cm. x 3-4 mm., pallid, with a few scattered fibrils at apex, glabrescent, dry, hollow.

Veil, if any, not observed.

Spores (8) 9-11 x (4.5) 5-5.5 μ , ellipsoidal, brown, smooth.

Pleurocystidia none; cheilocystidia clustered, numerous, extending up sides of gills a short distance, pyriform to balloon-shaped, 21-35 x 11-20 μ .

Surface of pileus composed of 2 or 3 layers of globose to pyriform cells, 30-40 x 20-28 μ .

Psathyrella No. 18929 Smith, or at least very close, according to A. H. Smith.

On lawn, Knox County, Tennessee, September.

Psathyrella No. 3701

Cystidia variously shaped from subventricose to cylindrical, broadly obtuse on ends, 10-12 μ diam., projecting 15-30 μ .

Spores 5.7-7.4 x 4-4.2 μ .

When fresh, this seemed to be related to Hypholoma cinereum Parker.

On soil, in frondose woods, Sevier County (Park), Tennessee, July.

5011

PSATHYRELLA

On soil, open woods, New Market, Virginia, leg. H. R. Milliken, May 3, 1959

Notes by Milliken

Pileus 2-2.6 cm broad, convex with a slight umbo, margin striate, disc light golden brown, elsewhere creamy brown.

Lamellae sinuate, slate-brown.

Stipe light tawny.

Spores in deposit: slate gray.

Psathyrella No. 11208

Pileus 3-4 cm. broad, convex, hygrophanous, atomate, glabrous, "bister," "mummy brown," "raw umber," when wet; whitish (when dry), margin striatulate (wet).

Flesh thin, whitish.

Lamellae adnate, sub-decurrent, about "bister," sub-ventricose, close, edge serrulate.

Stipe 5-7 cm. x 4-5 mm., white, apex white-mealy, basal portion with scattered brownish fibrils, hollow, slightly striate, equal or tapering downward, dry, whitish mycelioid at extreme base.

Veil white, delicate, evanescent, shreds hanging from margin for a time.

Spores 7-8 x 3.2-4 μ , elliptical to sub-reniform, color in mass not matched (see spore print).

Pleurocystidia scattered, ventricose, pyriform, 40-45 x 16-22 μ ; cheilocystidia pyriform, 22-27 x 12-18 μ .

Smith (Letter, June 30, 1938) not ready to name until he knows the group better.

Under apple, Blount County, Tennessee, March.

Psathyrella No. 14212

Pileus 2.5-4.5 cm. broad, expanding, atomate, hygrophanous, "pale cinnamon pink" (dry), watery brown (wet), radiately wrinkled to rugose, margin striate (wet).

Flesh thin, fragile; odor and taste mild.

Lamellae adnate, ventricose, broad, "fuscous," medium close, edge fimbriate.

Stipe 4-11 cm. x 3-6 mm., white, shining, with scattered fibrils, hollow.

Spores 7-9 x 3.5-4 μ , ellipsoid.

Cheilocystidia and pleurocystidia ventricose, 27-50 x 10-18 μ , not abundant.

On humus, frondose woods, Sevier County (Park), Tennessee, May.

Psathyrella No. 14693

Pileus 1-2 cm. broad, convex, not viscid, hygrophanous, "clay color" (dry), "clove brown" (wet), canescent, margin striatulate (wet).

Flesh thin, watery, fragile; odor and taste mild.

Lamellae adnate, seceding, very broad, narrowed in front, close, dark purplish-slate (not matched), edge fimbriate.

Stipe 3-5 cm. x 1.5-2.5 mm., white, fragile, glabrous, silky below, shining, hollow.

Spores 8-9 x 4.5-5 μ , ellipsoidal, purple-brown, smooth.

Cystidia rare on sides, clustered on edges, ventricose, 32-40 x 9-12 μ .

→ Closely related to Ps. betulina Pk.

On soil, among chips and bark, Highlands, North Carolina, September.

Smith holds coll.

Psathyrella No. 15892

Pileus 2 cm. broad, convex-campanulate, obtusely umbonate, "pale pinkish buff," disk "pinkish buff," entire surface lanuginose, hairs coarse, margin appendiculate.

Flesh thin, white, odor mild.

Lamellae broadly adnate to adnexed, seceding "pale brownish drab," edge crenulate, medium broad, close.

Stipe 5 cm. x 3 mm., dry, white-shining, glabrous, apex mealy, hollow, fragile.

Spores 8-9 x 5-5.5 μ , ellipsoid, smooth, purple-brown (under microscope).

Pleurocystidia and cheilocystidia abundant, colorless, 54-60 x 7-9 μ , ventricose-subcylindric, base blunt, apex somewhat pointed.

Veil appendiculate, fugacious.

It seems near Ps. pennata (Fr.) Singer. Smith (Letter, November 27, 1943) says: "Psathyrella pennata in all but spores which are longer and narrower than usual (8-10 x 4-4.5 μ)."

On soil, mixed conifer-frondose woods, Sevier County (Park), Tennessee, August.

Psathyrella No. 15917

Pileus 2-3 cm. broad, convex-expanded, hygrophanous, "cartridge buff" (dry), dark (wet), disk brownish (wet), atomate, margin even or striate (dry), striatulate (wet).

Flesh thin, concolor or whitish; odor and taste fungoid.

Lamellae rounded-adnate, ventricose, broad, close, "neutral gray," edge fimbriate.

Stipe 4-5 cm. x 3-4 mm., whitish, apex pruinose, elsewhere glabrous, flexuous, hollow.

Spores 9-12.8 x 5-6.5 μ , ellipsoidal, sub-inequilateral, smooth, dark-brown (under 'scope), purplish in mass.

Pleurocystidia none; cheilocystidia cylindrical, 30-53 x 11-13 μ .

On pine chips, Anderson County, Tennessee, October.

Psathyrella No. 15919

Pileus 1-2 cm. broad, convex, dry, pallid, disk tinted tawny, not hygrophanous, appearing glabrous but silky under lens, not atomate, margin striate.

Flesh thin, fragile; odor and taste mild.

Lamellae rounded-adnate, broad, ventricose, close, edge fimbriate, "light mouse gray" to "mouse gray."

Stipe 2-4 cm. x 2-4 mm., white-shining, apex pruinose, elsewhere glabrous, hollow, dry, tapering downward or equal.

Spores 9.5-11 x 4.7-5 μ , elliptical-pyriform, purplish-black in mass.

Pleurocystidia scattered, bottle-shaped, 40-48 x 9-12.8 μ ; cheilocystidia similar, clustered.

On lawn, under oak, Knox County, Tennessee, October.

Psathyrella No. 16027

Pileus 4-7 cm. broad, not viscid, not atomate, hemispheric-convex, finally convex-plane, hygrophanous, "mikado brown" (young and moist), apex paler ("ochraceous-tawny"), "pale pinkish buff" to "pinkish buff" (when mature and dry), watery-brown (mature and moist), appearing silky under lens, margin striatulate (conspicuously so when wet).

Flesh fragile, pallid, darker when wet; odor fungoid, taste mild.

Lamellae adnate, with a decurrent tooth, many short, at times seceding, medium-broad to narrow, close, edge eroded, whitish at first, finally "wood brown" with a purple-brown cast.

Stipe 6-9 cm. x 5 mm., white-shining, easily splitting longitudinally, tapering upward slightly, hollow, apex pruinose, base curved and white-strigose; veil ephemeral.

Spores smooth, "deep brownish drab" in mass, 8-9 x 4.5-5.5 μ , ellipsoidal-subreniform, ends blunt.

Pleurocystidia scattered, few, ventricose, mostly 30-35 x 12-15 μ (few 56 x 14 μ). Cheilocystidia clustered, mostly pyriform 27-32 x 11-14, few ventricose.

Basidia 22-25 x 8-9 μ , 4-spored.

Smith (Letter, May 4, 1944) says this appears to be same as No. 16045, and both are unidentified, but near Psathyrella spadiceogrisea (Fr.) Smith.

On deep humus, oak-pine woods, Knox County, Tennessee,
March.

Psathyrella No. 16045

Pileus 2-4 (7) cm. broad, rounded-convex to hemispherical, becoming convex to nearly plane, hygrophanous, "pale pinkish buff" (dry), watery-brown (wet), appearing appressed-silky under lens, margin floccose-fibrous when young, glabrescent, radiately rugose, appearing striatulate (when wet).

Flesh thin, concolor to pileus; odor and taste none.

Lamellae adnate, with a decurrent tooth, seceding, medium broad, nearly linear, narrowed in front, crowded then close, near "drab" at first, finally "snuff brown," edge paler, serrulate.

Stipe 3-6 (9) cm. x 2.5-3.5 mm., white-shining, apex mealy, hollow, tapering upward.

Spores 6.4-8.5 x 4-5 μ , ellipsoidal, smooth, brown under scope, purple-brown in mass (not matched).

Cheilocystidia pyriform, clustered, 20-33 x 11-16 μ .
Pleurocystidia ventricose to fusiform, scattered, 40-64 x 10-14 μ .

Appears to be same as No. 16027 (Smith, Letter, May 4, 1944).

On soil, frondose woods, Knox County, Tennessee, April.

Psathyrella No. 16361

Pileus 2-4 cm. broad, convex, hygrophanous, dry, "pale pinkish buff" (when dry), dark watery brown (when wet), appearing appressed silky under lens, radiately rugulose, margin appendiculate.

Flesh thin, medium firm, whitish; odor and taste mild.

Lamellae adnate with a decurrent tooth, or uncinata, pallid at first, finally "dark vinaceous-drab"; medium broad, crowded, edge pale, eroded to serrulate.

Stipe 8-14 cm. x 3-6 mm., very fragile, brittle, whitish, polished, flexuous, base usually curved and matted-mycelioid, apex mealy, elsewhere glabrous, hollow.

Spores 8-10 x 4.5-6 μ , brown (under microscope), smooth, ellipsoidal.

Cheilocystidia clustered, pyriform to cylindrical, 24-35 x 10-12 μ . Pleurocystidia scattered, few, ventricose, 40-45 x 15-18 μ .

Veil white, ephemeral, appendiculate.

→ Is it the same species as No. 16027 and No. 16045?

In humus, oak woods, Knox County, Tennessee, April.

Smith holds coll.
Psathyrella No. 16380

Pileus 2-3.5 cm. broad, convex, expanding, dry, glabrous, shining, hygrophanous, "pale pinkish buff" (dry), "snuff brown" (wet), margin striate.

Flesh thin, fragile; odor and taste mild.

Lamellae adnate-subdecurrent, then emarginate, finally seceding, close, medium broad, "snuff brown," edge white, fimbriate.

Stipe 3-5 cm. x 2-3 mm., white, shining, pruinose above, hollow.

Spores ellipsoidal, 8-9 x 4-5 μ , smooth.

Pleurocystidia scattered, ventricose, apex blunt, 40-48 x 11-16 μ . Cheilocystidia similar, shorter.

Same as A. H. Smith's No. 5.

In humus, conifer-frondose woods, Swain County, North Carolina, June.

Psathyrella No. 17027

Pileus 2-4 cm. broad, convex, somewhat umbonate, micaceous, hygrophanous, "pinkish buff" (dry), "warm sepia" (wet), umbo "cinnamon," not viscid, conspicuously radiately rugose, margin decorated with white triangular patches of veil, striate (wet), even (dry).

Flesh thin, fragile, hygrophanous, concolor to pileus, odor and taste mild.

Lamellae adnate-decurrent, seceding, ventricose, medium broad, close, "auburn," edge serrate.

Stipe 3-5 cm. x 3-5 mm., white, stained brownish, shining, apex mealy, scattered fibrillose below, dry, hollow, equal, base slightly enlarged.

Spores 7-8.5 x 4.5-5 μ , ellipsoidal, smooth, brownish under scope, in mass, "bone brown."

Pleurocystidia scattered, few, ventricose, 40-48 x 11-13 μ . Cheilocystidia pyriform, 30-34 x 12-16 μ .

Smith states that it is near P. angustispora sp. nov.

On spruce log, Swain County (Park), North Carolina, June.

Psathyrella No. 17300

Pileus 2-5 cm. broad, hygrophanous, "bister" when young, grayish-olive (not matched) when mature, glabrous, striate half-way to disk.

Flesh thin, delicate, concolor; odor and taste mild.

Lamellae adnate, "fuscous," broad, crowded, edge fimbriate.

Stipe 6-10 cm. x 3-6 mm., whitish, hoary (under lens), dry, striate, equal, tubular.

Spores ellipsoidal, 8-9.6 x 4.5-5 μ , smooth, dark-brown under 'scope.

Cheilocystidia balloon-shaped to pyriform, clustered, 24-32 x 11-14 μ . Pleurocystidia scattered, very few, bottle-shaped, 40-45 x 12-16 μ .

Smith says: It was described as Hypholoma incertum var. sylvestris by Kauffman. Same as Smith's No. 14271.

On decaying oak limb, Knox County, Tennessee, December.

Psathyrella No. 17725

Pileus 3-8 cm. broad, convex, finally wavy-upturned, at first with scattered white fibrils, glabrescent; not viscid, hygrophanous, "pale pinkish buff" (dry), "drab" (wet), disk "ochraceous tawny," margin striatulate.

Flesh thin, very fragile, moist, dingy brownish; odor and taste mild.

Lamellae narrowly and rounded adnate, crowded, nearly white at first, finally "drab" (not matched), medium broad, edge fimbriate.

Stipe 5-8 cm. x 5-8 mm., white, silky, dry, fragile, equal, hollow.

Spores 7-9.5 x 4-5 μ , ellipsoidal, smooth, color in mass: "bone brown" to "warm sepia."

Pleurocystidia abundant, 40-64 (72) x 16-22 μ , ventricose, apex crested, often long-stalked; cheilocystidia few to abundant, similar to pleurocystidia, 40-60 x 13-16 μ .

On lawn, Knox County, Tennessee, July-September.

Psathyrella No. 18165

Pileus 1-2 cm. broad, pale brownish buff when dry (not matched), atomate, hygrophanous, very dark when wet.

Flesh thin.

Lamellae adnate, ascending, crowded, broad, ventricose, edge crenulate.

Stipe 5-10 cm. x 1.5-2.5 mm., white, shining, equal, glabrous, hollow.

Spores dark brown (under scope), smooth, ellipsoidal, 9-10 x 4.5-5 μ .

Cheilocystidia 24-30 x 8-9 μ , bottle-shaped;
pleurocystidia few, scattered, spindle-shaped, 40-50 x 9-12 μ .

Smith says it is closest to his No. 6220.

On soil, deep grass, Swain County (Park), North Carolina, October.

18562

PSATHYRELLA

From lawn, Highland Avenue, Knoxville, July 21, 1948, coll. L. R. Hesler

(same as 17725)

Pileus hygrophanous, "pale pinkish buff" (dry), much darker (watery brown, when wet), disk "ochraceous tawny." Lamellae "light drab." Spores 7.8-9 x 4.5-5 microns. Cheilocystidia abundant, 40-60 x 13-16 μ .

18909

PSATHYRELLA

on soil
Greenbrier, GSMNP
Coll.: A. J. Sharp
Det.: L. R. Hesler, February 27, 1949

Pileus 2-3 cm broad, convex-hemispheric, finally convex, silky, atomate, hygrophanous, "clay color" (dry), "snuff brown" (wet), margin white-appendiculate, at times splitting. Flesh rather thin on disc, very thin on margin, white; odor and taste mild.

Lamellae adnate, rather broad, close, pallid at first, finally "buffy brown" to "olive brown," edge pale, fimbriate.

Stipe 3-4 cm x 4-6 mm, dry, whitish, shining, fibrillose, hollow, equal. Veil webby, white, appendiculate, evanescent, leaving a slight ring.

Spores 8-9 x 4-4.5 μ , smooth, ellipsoidal. Pleurocystidia scattered to numerous, bottle-shaped to cylindric-clavate-stipitate, 40-45 x 12-13 μ (7-8 μ , at apex); cheilocystidia clustered, spherical to pyriform, 11-16 x 9-11 μ .

Psathyrella No. 18911

Pileus 2.5-3.5 cm. broad, convex, nearly expanding, not viscid, hygrophanous, "pale pinkish buff" when dry, "hair-brown" when wet, atomate, margin rugulose-rivulose, striatulate (markedly so, when wet).

Flesh thin, fragile, pallid; odor and taste mild.

Lamellae adnate-subdecurrent, close to almost crowded, medium broad, narrowed either way, "benzo brown" (mature), young gills not observed, edge fimbriate.

Stipe 4-6 cm. x 2-6 mm., whitish with scattered fibrils, dry, tapering upward, tubular.

Spores ovoid-ellipsoid to ellipsoid, smooth, 7-9 x 4-4.8 μ , "blackish brown (2)" in mass.

Pleurocystidia few, scattered, bottle-shaped, 32-38 x 14-19 (center) x 8-9 (apex); cheilocystidia balloon-shaped, pyriform, 12-19 (24) x 9-12 (19) μ .

On humus, Sevier County (Park), Tennessee, March.

18911 - *Psathyrella*

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Psathyrella No. 18912

Pileus 3-4.5 cm., hemispheric then convex, atomate, "cinnamon buff" (young), hygrophanous, "hair brown" (wet), "pinkish buff" (dry), margin spuriously striatulate (not truly so).

Flesh rather firm, white; odor mild, taste mild then slightly bitter.

Lamellae adnate, slightly seceding, rather broad, close or almost crowded, at first white, finally "verona brown" to "Prout's brown," edge serrulate.

Stipe 5-9 cm. x 5-8 mm., white, with scattered fibrils, equal, dry, hollow.

Veil white, arachnoid, appendiculate, evanescent.

Spores ellipsoidal to elongate-ovoid - ellipsoid, smooth, 9-11 x 4-4.8 μ , "blackish brown (1)" in mass.

Pleurocystidia bottle-shaped, scarce, 32-40 x 16-19 μ ; cheilocystidia balloon-shaped to pyriform, 16-24 x 8-17 μ .

On humus, Sevier County (Park), Tennessee, March.

18912 - *Spathypella*

Psathyrella No. 18975

Pileus 1.5-3 cm., convex, hygrophanous, pale buff (not matched), when dry, "snuff brown" when wet, atomate, rugose, white-appendiculate.

Flesh pallid, thin; odor and taste mild.

Lamellae adnate, crowded, "bister," edge white, fimbriate.

Stipe 25-40 mm. x 2-4 mm., white, mealy above, scattered fibrillose below, hollow.

Spores 6-7 x 3.3-3.6 μ , ellipsoidal, dark brown (under 'scope).

Pleurocystidia few, bottle-shaped, 35-42 x 15-18 μ ;
cheilocystidia clustered, bottle-shaped to clavate,
24-32 x 9-11 μ .

On hemlock log, Sevier County (Park), Tennessee,
June.

Smith holds.

Psathyrella No. 19016

Pileus 4.5 cm. broad, convex, glutinous, disk "auburn," elsewhere paler brown, radiately streaked.

Flesh firm, pallid; odor and taste mild.

Lamellae adnate, with a decurrent tooth, close, near "Isabella color," medium broad, edge fimbriate to denticulate.

Stipe 5.5 cm. x 10 mm., fibrillose, nearly reticulate, apex white, brownish below; annulus as a brown, fibrous ring, finally disappearing.

Spores 7-8 x 3.5-4 μ , ellipsoidal, smooth, brown (under 'scope).

Pleurocystidia bottle-shaped, numerous, 52-60 x 11-14 μ ; cheilocystidia similar, smaller, clustered.

(Park)

On ground, spruce woods, Swain County, North Carolina,
June.

19029

PSATHYRELLA?

On rich soil (near horse manure), Indian Gap, red spruce woods, coll. L. E.

Hesler, July 2, 1949

Pileus 8-18 mm, conic-convex, obtusely umbonate, slightly hygrophanous, white-silky, "snuff brown," margin paler, disk darker, striatulate when wet. Flesh thin, concolor; odor and taste mild.

Lamellae narrowly and rounded-adnate to adnexed, not close, broad, ventricose, rugose (on sides), grayish-olive (not matched), edge eroded.

Stipe 2.5-5 cm x 1-2 mm, dingy, shining, scurfy at apex, hollow.

Spores 6.5-8 x 5-6 μ , smooth, pale (color not observed). No cystidia found.

19033

PSATHYRELLA

On soil, woods near Mt. LeConte, coll. A. J. Sharp, July 9, 1949

Pileus 4 cm broad, convex, ashy color, disk smoky, hygrophanous, atomate, rivulose, margin striate. Flesh thin, gray; odor and taste slight. Lamellae adnate, seceding, medium broad, close, "light drab," edge fimbriate. Stipe 7 cm x 6 mm, pallid, apex mealing, equal. Spores 8.5-9.5 x 4.8-5.5 μ , smooth. Fleurocystidia and cheilocystidia similar, cylindric to bottle-shaped, 32-48 x 12-16 μ .

This is all. Please return.

Smith (Letter, February 26, 1952) says: "The pale gills and spores along with cystidia make it unusual." Need notes on veil and color when young.

Psathyrella

Psilocybe No. 19340

Pileus 15-28 mm., conic-convex, hygrophanous, atomate, "hair brown" (wet), pale pinkish drab (dry) (not matched), striatulate to disk, at times rugulose.

Flesh thin, fragile; odor and taste mild.

Lamellae adnate, seceding, close, medium broad, "fuscous," edge fimbriate.

Stipe 3-6 cm. x 1-3 mm., white, shining, cartiliginous, tubular.

Spores purplish-brown, ellipsoidal, smooth, 9-10 x 4.6-5 μ .

Pleurocystidia bottle-shaped, few, 32-40 x 7-8 (12) μ ; cheilocystidia similar, shorter, few.

On trash, humus, and soil in damp woods, Highlands, North Carolina, September.



19340 - *Psathyrella*

Psathyrella No. 19350

Photo

Pileus 3-5 cm., hygrophanous, "warm buff" (young), at maturity, "light buff" (dry), "Saccardo's umber" (wet), striatulate (wet), appendiculate at first.

Spores deep purple brown in mass.

Sporophores cespitose, in rather large clusters.

On wet soil, Highlands, North Carolina, September.

19350 - *Psathyrella*

Psathyrella No. 19375

Pileus 12-24 mm., convex, expanding, atomate, not viscid, plush-like, pallid with tawny disk (dry), "hair-brown" to "snuff brown" (wet) with disk tawny, margin striatulate to disk.

Flesh thin, fragile, concolor; odor mild.

Lamellae narrowly emarginate, seceding, ventricose, medium broad, subdistant, pallid then "fuscous-black," edge paler, denticulate.

Stipe 4-6 cm. x 1-1.5 mm., white, shining, mealy at apex, elsewhere with a few scattered fibrils, equal, hollow, base white-strigose.

Spores 11-13 x 5-6.5 μ , smooth, ellipsoidal, dark purplish brown (under 'scope).

Pleurocystidia scattered, 56-70 x 12-16 μ , projecting up to 48 μ , bottle-shaped to sub-fusoid, long tapering neck; cheilocystidia clustered, similar, smaller, 35-38 x 7-9 (12) μ .

Surface of pileus composed of a more or less regular layer of globose to pyriform smooth, colorless cells, 24-32 x 24-27 μ .

On fallen magnolia fruits, Knox County, Tennessee, October.

PSATHYRELLA NO. 19454

Pileus 2.5-3.5 cm. broad, convex, expanding, slightly umbonate, atromate rugulose-corrugated, hygrophanous, "cartridge buff" (dry), watery drab (wet), glabrous, margin even. Flesh white, thin; odor and taste mild. Lamellae adnate to slightly adnexed, seceding, medium broad, rather close, "hair brown," white, fimbriate. Stipe 6-7 cm. x 3-4 mm., white, scattered-fibrillose, equal, hollow. Veil, if any, not observed.

Spores 7-10 x 3-4.5 μ , ellipsoid, smooth. Pleurocystidia few, ventricose, 30-47 x 10-15 μ ; cheilocystidia scattered to clustered, clavate, 25-37 x 10-12 μ . Epicutis of 2-3 layers of large, colorless, vesiculose, globose to pyriform cells.

Habitat and Distribution. - In deep humus, deciduous woods, North Carolina, June.

Fileus 2-4 cm. broad, convex, expanding, hygrophanous, near "honey yellow" to "pinkish buff," when dry, "bister" when wet, glabrous surface more or less rugose and pitted, margin even (dry), striatulate (wet), appendiculate. Flesh thin, fragile, pallid; odor and taste not distinctive (or slightly of rotten wood). Lamellae adnate, then adnexed, rather close, medium broad, edges fimbriate, brown. Stipe 2-4 cm. x 2-4 mm., white, white-mealy above, brownish-fibrillose downward, equal or tapering upward, hollow, annulus none.

Spores 7-8 x 3-4 μ , sub-ovoid, smooth, brown. Pleurocystidia and cheilocystidia similar, conspicuous, bottle-shaped-ventricose, apex rounded, 35-56 x 10-17 μ , not incrusted and not colored in KOH. Epicutis of 2-3 layers of colorless, globose to pyriform, large cells.

Habitat and Distribution. - On decayed spruce log, North Carolina, June.

Discussion. - Near P. insignis and P. hololanigera.

Psathyrella No. 19501

Pileus 2-4 cm. broad, floccose-fibrillose at first, finally nearly glabrous, conic, then convex, scarcely expanding, hygrophanous, "honey yellow" all over, or on central portion only and then marginal half grayish-olive (near "isabella color"), "light brownish olive" when wet, atomate, rugulose, margin striatulate.

Flesh thin, only moderately fragile.

Lamellae adnate, seceding, pallid at first, finally "hair brown" to "deep mouse gray," sprinkled with spores, edge denticulate, close, broad.

Stipe 6-9 cm. x 1.5-3 mm., white, shining, flexuous, apex mealy, hollow.

Spores, etc., not studied.

On humus, conifer-frondose woods, Blount County (Park), Tennessee, October.

Psathyrella No. 19616

Pileus 2-4 cm. broad, at first convex-hemispheric, finally campanulate and umbonate, glabrous, hygrophanous, grayish-tawny (dry) (not matched), disk "cinnamon buff," watery-brown (wet), spuriously rivulose (under lens), margin faintly striate (wet), even (dry).

Flesh dingy brownish, paler (dry), thin; odor and taste slight.

Lamellae adnate-subdecurrent, crowded, medium broad, "light drab," finally near "fuscous," edge denticulate.

Stipe 5-7 cm. x 2-3 mm., white, equal, apex mealy:

Veil, if any, not seen.

Spores 7-8 x 3.5-4 μ , ellipsoidal, smooth.

Pleurocystidia few, scattered, ventricose, to subfusoid, 40-56 x 8-14 μ ; cheilocystidia pyriform-clavate, 30-35 x 13-16 μ .

Surface of pileus composed of several layers of pseudo-parenchyma (not a palisade), cells globose (24-28 μ diam.), or pyriform (37-42 x 30-34 μ), to irregular-shaped (51-64 x 20-28 μ); occasionally "pilocystidia" may be present (?).

Smith's Key suggests that it is close to P. 10921 or P. minima.

On soil, collected by M. Boarts, Knox County, Tennessee, February.

19616 - *Psathyrella*

Psathyrella No. 19722

Photo

Pileus 2.5-3.5 cm. broad, hygrophanous, atomate, pale clay when dry, dark watery brown when wet (disk remaining clay colored), radiately rugulose, surface plush-like.

Flesh thin, fragile; odor and taste mild.

Lamellae adnate, crowded, "light drab" then "benzo brown" (very young gills not seen), edge fimbriate.

Stipe 3-5 cm. x 2-4 mm., white, striate above, flocculose, easily splitting, hollow.

Spores (5.5) 7-8 (9) x (3.5) 4-4.5 μ , smooth, ellipsoidal, "fuscous" in mass.

Pleurocystidia none; cheilocystidia clustered, clavate-cylindric to sub-bottle-shaped, apex blunt, (28) 33-42 x (7) 8-10 μ .

Cespitose, sub-cespitose to gregarious.

On newly graded lawn, Knox County, Tennessee, September.



19722 - *Prathyrella*

Psathyrella No. 20225

Pileus 18-35 mm. broad, convex, finally expanded convex-plane, "light buff" to "pale pinkish buff," disk "cinnamon," atomate, surface plush-like, strongly hygrophanous, margin striate when wet, even when dry.

Flesh thin, pallid, fragile; odor and taste none.

Lamellae adnate, seceding, rather broad, close to crowded, bluish-black at maturity, edge fimbriate.

Stipe 4-6 cm. x 2.5-4 mm., white, shining, apex flocculose, elsewhere glabrous, equal, hollow.

Spores 9.5-11 x 5-6 μ , smooth, black in mass.

Pleurocystidia rare (only one observed), bottle-shaped, apex rounded, 56-11 μ ; cheilocystidia none.

Surface of pileus composed of about three layers of pyriform cells, 30-50 μ diameter.

On chips and saw-dust, Knox County, Tennessee, October.

Albocens Her. 5m
Psathyrella No. 20292

Pileus 3-5.5 cm. broad, convex, expanding plane, not viscid, hygrophanous, white when dry, "Saccardo's umber" to "dresden brown" when wet, young button "bister," disk "honey yellow," glabrous (though appearing appressed-fibrillose under lens), atomate, radiately rugose, margin even when dry, striatulate when wet.

Veil white, fibrous, evanescent, not appendiculate.

Flesh white, thin; odor and taste none.

Lamellae adnate, sub-emarginate, broad, ventricose, "Saccardo's umber" at maturity, white in button-stage, edge minutely fimbriate, close.

Stipe 5-8 cm. x 4-6 mm., white, apex white floccose or squamulose, elsewhere with scattered, dark fibrils, equal or slightly tapering upward, stuffed then hollow.

Spores ellipsoidal, (7) 8-9 x 4-4.8 μ , smooth, "blackish brown (2)" in mass; fading in KOH.

Pleurocystidia scattered, ventricose, apex rounded, 45-56 x 12-14 (middle) x 8-9 (apex), stipitate by a basal, slender stalk. Cheilocystidia relatively few, 32-38 x 12-16 (middle) x 6-8 (apex).

Surface of pileus composed of 2 or 3 layers of globose to pyriform, smooth cells, 35-42 x 28-32 μ .

Basidia 2-4-spored.

Seems to be same as (or close to) No. 18895.

On humus, frondose woods, Knox County, Tennessee, March.

Psathyrella No. 20799

Pileus 16-30 mm. broad, convex, not fully expanding, hygrophanous, "isabella color" when wet, "pale pinkish buff" when dry, micaceous, surface plush-like, margin not appendiculate, even when dry, striatulate when wet.

Flesh thin, concolor; odor and taste mild.

Lamellae adnate with a decurrent tooth, whitish at first, finally "pallid quaker drab," close, medium broad, many short, margin serrulate.

Stipe 3-4 cm. x 2.5-4 mm., white, apex mealy, elsewhere fibrillose, glabrescent, dry, equal, hollow.

Veil lacking (or not observed).

Spores ellipsoidal, at times sub-reniform, 7-8 x 3.5-4 μ , smooth, color in mass: "blackish violet gray."

Pleurocystidia scattered, vesiculose, 32-36 x 10-12 μ ; cheilocystidia clustered, pyriform to fusoid, 20-32 x 10-15 μ .

Lamellae and flesh blackish in KOH.

Surface of pileus (cuticle) composed parenchyma-like cells, globose to ellipsoidal, 20-40 x 16-28 μ .

Close to No. 18895 and No. 20292.

On chips, open frondose woods, Knox County, Tennessee, April.

20799 - *Psathyrella*
(Close to 18895)

cinereum Parker (?) (*H. saccharinophilum* Pk.)

On soil and humus, edge of lawn, A. J. Sharp, Knox County, det. L. R.

Hesler, June 17, 1953

Pileus 8-20 mm broad, hemispheric-convex, finally convex, not fully expanding, "light ochraceous buff" when young, finally pale ochraceous to nearly white, disk usually remaining buff, hygrophanous, "light mouse gray" when wet, fibrillose, atomate, deliquescing somewhat, appendiculate, margin even. Flesh white, very thin; odor and taste mild. Lamellae adnate, white when young, finally "avellaneous" sometimes with a pinkish tint, rather narrow, linear, close or nearly so, edge fimbriate. Stipe 10-25 mm x 1-2 mm, white, striate and pruinose at apex, fibrillose-subscaly below, dry, equal, base at times bulbillate, hollow. Veil webby, white, evanescent, leaving shreds on pileus margin. Spores 6.5-8 x 3.5-4.5 μ , ellipsoidal, smooth, "hair brown" in mass. Pleurocystidia none; cheilocystidia clustered, clavate to broad-cylindrical, 22-28 x 9-12 μ . Surface of pileus composed of several layers of globose to ellipsoidal cells, 19-37 x 14-25 μ .

This keys out in Smith to Psathyrella coronata but it does not resemble that species.

20863 - *Psathyrella*

(*Hypoloma cinereum* Parker)

20932

PSATHYRELLA

On lawn, Knox County, Tennessee, June

Pileus 7-10 mm, convex, grayish-brown (not matched), plush-like, atomate, glabrous, not hygrophane, margin even. Flesh pallid, thin; odor and taste mild.

Lamellae broadly adnate, dark (blackish brown), rather broad, sub-distant, margin white-fimbriate.

Stipe 20-28 mm x 0.5-1.0 mm, dingy, glabrous, apex white-mealy, equal.

Spores ellipsoidal to sub-limoniform, 12-16 x 6.5-8.5 μ , rough, brown (under 'scope), spore deposit not obtained. Pleurocystidia basidiiform, not projecting far, 22-26 x 10-12 μ ; cheilocystidia clustered, slender-cylindrical, 16-33 x 3-5 μ . Cuticle composed of globose to subglobose cells, 15-20 x 10-19 μ diam.

Psathyrella No. 21000

Fileus 3-4.5 cm., hemispheric, then convex, finally expanded-convex, somewhat umbonate, hygrophanous, "chestnut brown" when young and moist, at maturity drying "snuff brown" (margin paler), with scattered white remnants of veil. Flesh thin, pallid below, brown next to cuticle; odor and taste mild. Lamellae adnate, finally subdecurrent, white, finally "wood brown," narrow, close, edge flocculose. Stipe 6-7 cm. x 4-5 mm., white or slightly dingy, sparse-fibrillose, glabrescent, apex pruinose, dry, equal, hollow. Veil ample, white, webby, leaving marginal remnants (appendiculate).

Spores 7-8 x 4-5 μ , ellipsoidal, smooth, color in mass: "blackish brown (3)." Pleurocystidia few, bottle-shaped, 40-48 x 7-10 μ ; cheilocystidia clustered, clavate (few vesiculose), 16-31 x 10-17 μ .

In deep humus, frondose woods, Highlands, North Carolina, September.

PSATHYRELLA NO. 21319

"

21354

"

22574

Pileus 3-6 cm. broad, convex, expanding-convex, broadly umbonate, hygrophanous, "pale olive-buff" to "pale pinkish buff" when dry, pale watery-brown when wet, minutely fibrillose under lens, radiately rugulose, margin striate, ^{or "pale drab gray"} ^{delicately at first} ~~not~~ appendiculate. Flesh medium thick on disk, thin on margin, pallid to whitish (dry), watery brown (wet); odor and taste none. Lamellae sub-emarginate, decurrent by a line, close, medium broad, "light drab" becoming "hair brown" (youngest stages not seen), edges fimbriate. Stipe 5-9 cm. x 2.5-⁸ mm., white, shining, glabrous except white-mealy apex, striate, equal, cartilaginous, base often sharply curved and matted-mycelioid, tubular. Veil ^{white, webby,} ~~translucent, delicately appendiculate for a short time.~~ ^{(young stages of sporophore not observed).}

^{4.5}
Spores 8-11 x ^{4.5} 6 μ , ellipsoid, often sub-inequilateral, scarcely subreniform, smooth, color in mass: "fuscous." Pleurocystidia none; cheilocystidia conspicuous, clustered, mostly ventricose, apex rounded, 38-51 x 12-30 μ , few cylindrical, 35-48 x 8-12 μ .

Surface of pileus composed of pseudo-parenchyma cells, irregular in shape and variable in size.

Habitat and Distribution. - In deep humus, Tennessee, May.

21319 - *Psathyrella*
(same as # 21354)

Pileus cespitose, 2-4 cm. broad, at first conic, then conic-convex, not fully expanding, rather acutely umbonate, hygrophanous, "pale ochraceous buff" (dry), "bister" (wet), radiately rivulose, glabrous, margin appendiculate with white bands from veil, striate. Flesh thin, pallid, fragile; odor mild, taste unpleasant. Lamellae narrowly adnate, ascending, ventricose, broad, close, pallid in "buttons," then "avellaneous," finally "snuff brown," edges white-fimbriate. Stipe 4-5 cm. x 3-5 (6) mm., white to dingy, glabrous, apex mealy, striate, base white-mycelioid, hollow, equal, bases often connate. Veil conspicuous, webby, white, evanescent, leaving remnants on pileus margin.

Spores 8-10 x 4-5 μ , smooth, ellipsoid, some slightly inequilateral, no color change in 2% KOH, "fuscous" in mass. Pleurocystidia scattered, ventricose-bottle-shaped, with a slender stalk, thin-walled, apex rounded-blunt, 32-52 x 10-14 μ ; cheilocystidia few to clustered, similar in shape and size.

Cuticle of pileus of pseudoparenchyma cells variable in size and shape.

Habitat and Distribution. - On decayed log, Tennessee, May.

delimited

Pileus 4-7 cm. broad, convex, with a broad, low, obtuse umbo, radiately rugose, not viscid, hygrophanous, "bister" when wet, buff when dry, disk "snuff brown," glabrous, margin even. Flesh white, soft, very fragile; odor and taste mild. Lamellae adnate-decurrent, close, broad, broadest behind, pallid in button-stage, then "snuff brown," finally "bister," edges fimbriate. Stipe 5-8 cm. x 6-9 mm., fibrous, apex white and flocculose, dingy downward, solid becoming hollow, equal, dry. Veil white, webby, evanescent, *appendiculate to pileus margin.* annulus none.

to subreniforme,
Spores 6-9 x 4-5.5 μ , smooth, ellipsoid, in mass:
"chaetura black." Pleurocystidia none; cheilocystidia few, clavate to fusoid, 30-35 x 10-12 μ .

Cuticle of pileus composed of large pyriform to globose cells.

Close to Ps. rugoproxima (Parker) A. H. Smith, except for broad gills.

Habitat and Distribution. - On soil, deciduous woods, Knox County, Tennessee, May.

21323 - *Psathyrella*

rugoprosima ?

delinsecta .

PSATHYRELLA NO. 21353

Pileus 3-6 cm. broad, conic-convex, expanding, glabrous, hygrophanous, "pinkish buff" (dry), "olive brown" (wet), margin striatulate, appendiculate from white veil. Flesh thin, concolor, fragile; odor and taste mild. Lamellae adnexed, close, medium broad, whitish at first, finally "drab," edges even. Stipe 7-13 cm. x 4-8 mm., white, slightly silky, glabrescent, apex pruinose, base white mycelioid, dry, hollow. Veil white, copious, evanescent, appendiculate.

Spores ellipsoid, 7-8 x 4-5 μ , smooth, ends rounded, color in mass: "chaetura drab."

Pleurocystidia rare, ventricose-bottle-shaped, apex obtuse, 45-52 x 13-17 μ ; cheilocystidia rare, similar, smaller.

Cuticle cellular, irregular-shaped cells.

Sporophores solitary.

Habitat and Distribution. - In deep leaf mold in deciduous woods, Tennessee, May.

21353 - *Psathyrella*

21354 - *Isathyrrella*
(Same as #21319)

PSATHYRELLA NO. 21927

Pileus 1-5 cm. broad, convex, finally plane then upturned, umbonate, hygrophanous, "wood brown" and disk "snuff brown" when wet, pale grayish to whitish when dry, drying in radial streaks, pruinose, striate to disk. Flesh thin, brownish, fragile; odor and taste mild. Lamellae adnexed, close, linear, medium narrow, "avellaneous," atomate, edges fimbriate. Stipe 5-8 cm. x 2-4 mm., white, apex pruinose, elsewhere silky-glabrescent, hollow, equal, bulb slight or none. Veil white, slight, fugaceous.

Spores 6-7 x 4-4.5 μ , smooth, ellipsoid. Pleurocystidia none; cheilocystidia broadly clavate, 33-40 x 10-12 μ .

Habitat and Distribution. - In wet humus, deciduous woods, Alabama, August.

21927 - *Psathyrella*

PSATHYRELLA NO. 22250

Pileus 2-4 cm. broad, convex-hemispheric, finally plano-convex, "snuff-brown" (wet), "pinkish buff" (dry), faintly rugulose, faintly striatulate (wet), hygrophanous, glabrous. Flesh thin, watery-brown; odor and taste slightly alkaline. Lamellae rounded behind, adnate then free or nearly so, crowded, narrow, linear, at first pallid, finally "snuff-brown," edges minutely fimbriate, darker. Stipe 3-5 cm. x 3-5 mm., whitish, base becoming dingy brownish, minutely silky, easily splitting, moist, equal, hollow, white-tomentose at base. Veil white, webby, appendiculate, fugaceous.

Spores 5-6 x 3-3.5 μ , ellipsoid, smooth, ends bluntly rounded, in mass: "fuscous." Pleurocystidia ventricose, scattered, 63-70 x 20-22 μ ; cheilocystidia clustered, subglobose to pyriform, 28-35 x 21-25 μ . Cuticle composed of ovoid to subglobose cells, 60-75 x 45-55 μ .

Habitat and Distribution. - On deciduous log, Louisiana, December.

PSETHYRELLA NO. 22417

Pileus 2-4 cm. broad, hemispheric, finally convex, hygrophanous, "sage brown" (wet), "pale pinkish buff" (dry), glabrous, margin striatulate (wet), even (dry). Flesh thin, pallid, fragile; odor and taste mild. Lamellae adnexed, white at first, finally "mouse gray," close, broad and ventricose, narrowed both ends, edges fimbriate. Stipe 5-9 cm. x 4-5 mm., white, somewhat fibrillose, dingy white, equal, fragile, hollow. Veil white, copious, appendiculate.

Spores 6-8 x 3-4 μ , ellipsoid, smooth, Pleurocystidia ventricose, scattered, 25-30 x 10-14 μ ; cheilocystidia clavate, clustered, 30-33 x 9-14 μ .

Habitat and Distribution. - On humus, mixed woods, Tennessee, September.

PSATHYRELLA NO. 22432

Pileus 1.5-3 cm. broad, convex-campanulate, not fully expanding, hygrophanous, "bister" when young and moist, drying to "light ochraceous buff," glabrous, margin striate and radiately rugulose. Flesh fragile, pale buff, thin; odor and taste mild. Lamellae adnate, ascending, medium broad, sub-distant, white at first, finally "hair brown," edges white-fimbriate. Stipe 5-8 cm. x 3-4 mm., white, shining, fistulose, fibrillose-striate, equal. Veil white.

Spores 8-10 x 4.5-6 μ , ellipsoid, subreinform, smooth, purplish-black in mass. Pleurocystidia none; cheilocystidia 30-42 x 11-15 μ , ventricose to nine-pin-shaped, at times sub-capitate. Cuticle a palisade of rather large cells.

Habitat and Distribution. - On decaying beech limb, North Carolina, September.

Pileus 3-6 cm. broad, convex, expanding campanulate-convex, hygrophanous, "pale pinkish buff" when dry, "snuff brown" when wet, velvety but glabrous, mucaceous, at times pitted-rugose, margin even when dry, striatulate when wet. Flesh thin, fragile, pallid; odor none, taste mild or slight. Lamellae adnate, seceding, pallid (near "wood brown") then "Hay's brown," close, rather broad, ventricose, edges even or nearly so. Stipe 4-8 cm. x 4-6 mm., pallid, shining, apex white-mealy, elsewhere appressed fibrillose-striate, glabrescent, equal, fragile, hollow. Veil slight, evanescent.

Spores 4.5-6 x 3-3.5 μ , ellipsoid, smooth, in mass: "fuscous." Pleurocystidia none; cheilocystidia few, ventricose to subpyriform, 18-28 x 7-9 μ . Epicutis of large, colorless ellipsoid to globose cells, 25-40 μ diameter.

Habitat and Distribution. - On oak stump, Tennessee, December.

Discussion. - Near Psathyrella hydrophila (Fr.) Singer.

22566 - *Psathyrella*

PSATHYRELLA No. 22574

Spores (7) 8-10 (11) x 4.5-5.5 μ , ellipsoid, inequilateral, some subreniform, smooth, in mass "fuscous." Pleurocystidia rare, ventricose to bottle-shaped, subclavate, 45-55 x 14-18 μ ; cheilocystidia ventricose to clavate-cylindric, 30-40 x 10-20 μ . Epicutis of irregular cells (globose, pyriform), 30-45 x 15-20 μ .

Habitat and Distribution. - In deep humus, Tennessee, May.

Discussion. - Same as Nos. 21319 and 21354.

22574 - *Spathyrhella*

(Same as Nos. 21319 + 21354)

PSATHYRELLA No. 22576

Like No. 21323 - except cheilocystidia ventricose,
60-76 x 14-17 μ . Epicutis cells cuneate to subglobose,
25-32 x 18-25 μ . Spores 7-9 x 4-4.5 μ , ellipsoid to sub-
reniform.

Habitat and Distribution. - On humus, Tennessee, June.

22576 - *Psathyrella*

PSATHYRELLA No. 22988

Pileus 2.5-5 cm. broad, convex-conic then convex, hygrophanous, "pinkish buff" when dry, "snuff brown" when wet, drying inward, glabrous, margin striatulate. Flesh brownish, thin, fragile; odor mild, taste slight. Lamellae adnexed, close, medium broad, pallid finally "snuff brown," edges fimbriate. Stipe 3-6 cm. x 4-6 mm., white, shining, fibrillose, equal, hollow.

Spores 6.3-7.5 x 3.5-4 μ , ellipsoid, smooth (spore-print failed). Pleurocystidia 38-50 x 9-12 μ , ventricose; cheilocystidia 45-50 x 10-13 μ , ventricose.

Habitat and Distribution. - In humus, deciduous woods, Mt. LeConte Trail, May 24, 1959.

22988 - *Psathyrella*

PSATHYRELLA No. 23083

Pileus 1-2 cm. broad, convex, scarcely expanding, hygrophanous, pallid olive (not matched) when dry, "snuff brown," when wet, atomate, pruinose, striate to disk. Flesh pallid, fragile; odor and taste mild. Lamellae adnate to adnexed, seceding, pallid then "wood brown," close, medium broad, edges nearly even. Stipe 2-5 cm. x 1-2 mm., white-shining, apex pruinose, elsewhere glabrous, equal, fragile, hollow. Veil none.

Spores 5.5-7.5 x 4-5 μ , ellipsoid, smooth, dilute brownish under microscope, "hair brown" to "drab" in mass.

Habitat and Distribution. - Humus, deciduous woods, Hesler's, May 31, 1959.



23746 - *Psathyrella*

23109

PSATHYRELLA

On rotting straw, in garden, Boarts', Timberlake Road, Tennessee, August.

Pileus 6-10 mm broad, conic-convex, not fully expanding, dry, pale cinnamon buff (not matched), atomate, fibrillose, at times rugose, margin striate. Flesh thin, concolor, fragile; odor and taste mild.

Lamellae adnate, close, broad, many short, "cinnamon buff," edges fimbriate.

Stipe 1-4 cm x 1-1.5 mm, white, somewhat silky-fibrillose, equal above the slightly enlarged, mycelioid base, tubular. Veil none observed.

Spores "hair brown" in mass.

23158

PSATHYRELLA

On soil, deciduous woods under sycamore near Cherokee, August 20, 1958

Pileus 4-5 cm broad, convex, broadly and obtusely umbonate, hygrophanous, near "pallid mouse gray," fibrillose, radiately rugulose, margin even. Flesh concolor, soft, fragile; odor and taste mild.

Lamellae adnate to adnexed, seceding, close, rather broad, "pallid mouse gray," finally "mouse gray," edges white fimbriate.

Stipe 3-5 cm x 5-7 mm, white, shining, with scattered fibrils, apex white mealy, cartilaginous, hollow.

23464

Psathyrella
on soil, woods roads
Highlands, N. C., October 4, 1959

Fileus 1-2.5 cm. broad, conic-convex, more or less expanded-convex, hygrophanous, disk "ochraceous orange" (dry), elsewhere "dresden brown" (wet), "ochraceous tawny" when dry, canescent, even. Flesh pale "orange-tawny," thin; odor mild, taste slightly bitter. Lamellae adnexed to adnate, seceding, "light drab" then "hair brown" to "fuscous," close, broad, edges pale-fimbriate. Stipe 2.5-5 cm. x 1-2 mm., apex pallid, elsewhere brownish, with scattered fibrils, dry, hollow, equal. Veil, none seen.

23534

PSATHYPHELLA

Highlands (whiteside), coll. A. J. Sharp, October 24, 1959

Pileus hygrophaneous, when dry whitish, disk brownish, when wet
"bister."

23544

Psathyrella

soil and humus, deciduous woods, Boarts'
Coll.: M. Boarts, October 27, 1959

Pileus 7-18 mm. broad, convex, hygrophanous, "cinnamon brown" when wet, "light buff" when dry, atomate, striate to disk. Flesh thin, pallid; odor and taste mild. Lamellae adnate, pallid at first, finally "fuscous black," close, broad, edges pallid. Stipe 3-5 cm. x 1-1.5 mm., whitish, apex pruinose, elsewhere glabrous, equal, hollow.

Spores in mass: "chaetura black."

PSATHYRELLA No. 23572

on lawn, near Hackberry stump

Knox Co. AJS June 3-60

Pileus 2.5-6 cm. broad, ovoid when young, finally expanding-convex to sub-campanulate, hygrophanous, at first "yellow ocher," then "pale pinkish buff", disk "light buff," innately fibrillose, with a few whitish scales (veil remnants), rivulose, subrimose, atomate, radiately rugulose. Context thin, white; odor and taste mildly fungoid.

Lamellae narrowly adnexed, at first "ivory yellow" or whitish, finally "brownish drab," narrow, crowded, edges fimbriate.

Stipe 4-10 cm. x 3-7 mm., white, with scattered fibrils, equal or tapering upward slightly, hollow. Veil white, membranous-fibrillose, appendiculate for a short time, evanescent.

Spores "fuscous black" in deposit.



23572 - *Psathyrella*

23746

PSATHYRELLA

On lawn, Sharp's, Knoxville, Tennessee, May 16, 1961

Pileus 3-5 cm broad, campanulate, "ivory yellow" to "cartridge buff," slightly hygrophanous, plicate-striate to disc.

Lamellae ivory, then darker, crowded.

Stipe 5-8 cm x 5 mm, equal or fusoid (tapering above and below), fragile, hollow, white.

Spores in mass: "carob brown."

23788

PSATHYRELLA

On lawn, Henley Street, Knoxville, Tennessee, October 7, 1960, leg. A. J.

Sharp.

Notes by Sharp

Pileus cream to yellow tawny. Gills at first bluish-gray, then smoky-gray-brown.

23792

PSATHYRELLA

On lawn, Knoxville, Tennessee, leg. A. J. Sharp, October 7, 1960

Notes by Sharp

Pileus brown, fibrillose-hairy, margin appendiculate (from veil).
Stipe smooth above annulus which is floccose-cottony, aquamulose below,
pale-brown streaked.

Often caespitose.

PSATHYRELLA No. 24339
(Psilocybe)

n.c.

on golf-green (manured), Cashiers, June 15-61

Pileus 1.5-3 cm., conic, hemispheric-conic, to hemispheric-convex, finally convex-expanded, more or less umbonate, hygrophanous, "sepia" to near "carob brown" or "bister", when wet, pallid when dry, glabrous, striate. Context concolor, thin, fragile; odor and taste slight.

Lamellae rounded narrowly attached, ventricose, broad, close to nearly subdistant, pallid brownish, finally "bister", finally more or less mottled, edges crenulate with drops of water.

Stipe 6-8 cm. x 1.5-4 mm., pallid to dingy brown, pruinose above, shining, equal, fragile, hollow.

Psathyrella No. 24433

on lawn, Hesler's, July 27-'61

Pileus pinkish buff with a tint of gray, disk brownish, appressed fibrillose, dry. Lamellae rounded-adnate, pallid then "fuscous", broad, close, edges whitish-fimbriate. Stipe pallid, equal, glabrous.

Spore deposit: "fuscous black".

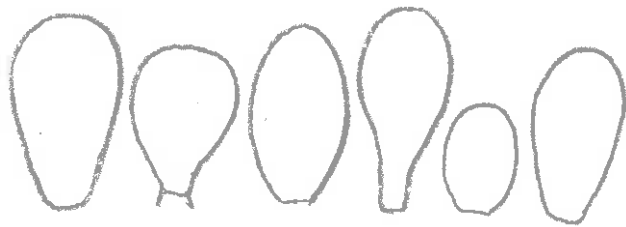
Pileus 2-6 cm. broad, convex then convex-expanded, umbonate, hygrophanous, "pinkish buff" when dry, "Prout's brown", the margin slightly paler when wet, drying from disc inward somewhat in streaks, slightly fibrillose at first then, finely rugulose, glabrous, finely striatulate to the disc. Context concolorous, thin, fragile; odor and taste mild.

Lamellae adnate, pallid, finally "buffy brown," crowded, narrow, lamellulae of 3 ranks, edges fimbriate.

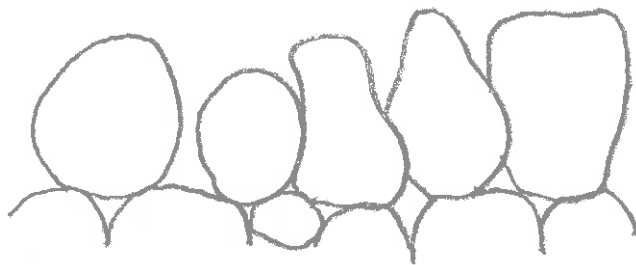
Stipe 4-8 cm. x 1.5-2 mm., white, dingy at the base, apex white-pruinose, elsewhere glabrous, hollow, fragile, tapering upward slightly. Veil none.

Spores 6-8 x 3.7-4.5 μ , ellipsoid, subreniform, smooth, color in deposits: "drab". Basidia 18-26 x 7-8 μ , 2-4-spored. Pleurocystidia none; cheilocystidia 15-27 x 10-14 μ , vesiculose, clustered, at times extending up the sides a short distance. Gill trama of large cells, 23-56 x 10-25 μ . Pileus trama pseudoparenchymatous. Cuticle a palisade of vesiculose cells.

Prathyrella No. 24625



Ch - x 1000



~~Pilo~~ + hymeniform cells of cuticle

PSATHYRELLA 24889

Pileus 3.5-4 cm., near "light buff" but with a gray tint, fibrillose-rimose, not hygrophanous, even. Context grayish; odor and taste mild.

Lamellae sinuate, "pale Quaker drab", narrow, close, edges floccose-dentate.

Stipe 6-7 cm. x 5-6 mm., white, minutely squamulose, tapering upward, hollow.

25057

PSATHYRELLA

Photo

On soil, Sherbakoff's, Knoxville, coll. C. D. Sherbakoff,
May 22-'63.

Pileus 2-4 cm., convex, expanding more or less margin slightly upturned, dingy buff, disc "clay color", micaceous, rivulose, hygrophanous (watery brown when wet), striate when wet, even when dry. Context thin, fragile, whitish; odor fungoid, taste mild.

Lamellae "drab" to "hair brown", adnate to adnexed, close, narrow or medium broad, edges flocculose.

Stipe 5-7 cm. x 2.5-6 mm., white, apex white-mealy, elsewhere subglabrous, hollow, equal.

25057 - *Psathyrella*

Pileus 5-8 cm. broad, conic-campanulate, becoming campanulate-convex to almost plane, umbonate, the umbo rounded, prominent, hygrophanous, at first "Isabella color" to "tawny olive," the umbo darker brownish ("buffy brown"), fading (except the umbo) to grayish, atomate, minutely rivulose, at first appendiculate, finely striatulate. Context thin, fragile, whitish; odor and taste slightly fungoid.

Lamellae narrowly attached, seceding, white, then "hair brown" to "drab," narrow, crowded, edges denticulate. Veil appendiculate.

Stipe 6-10 cm. x 6-10 mm., white, striate, glabrescent, easily splitting, hollow, equal.

Spores in deposit: "deep brownish drab."

25558 - *Isathyrrella*

25524 - *Psathyrella*
(*Panaeolus*)

25557

PSATHYRELLA

PHOTO

On lawn, under elm, Univ. Tenn. Campus, Knoxville, June 21, 1963.

Pileus 3-8 cm. broad, caespitose or gregarious, hygrophanous, near "warm buff" when young, paler at maturity, the central portion buff, when wet "light drab" to "light mouse gray," striatulate to disc when wet. Context thin, fragile.

Lamellae adnexed, or adnate, white, finally "light drab", narrow, crowded.

Stipe 5-8 cm. x 4-8 mm., white, with scattered fibrils, apex white-pruinose, striate, cartilaginous, hollow. Veil white, sparse, soon appendiculate.

25557 - *Psathyrella*

26048

PSATHYRELLA

around oak logs, in humus, Hesler's woods, May 3, 1964

Pileus 6-9 cm broad, hemispheric then convex, finally expanded "Van Dyke" brown", rugose, hygrophanous. Context brownish.

J → Lamellae slightly emarginate, pallid, finally blackish-brown, close, medium broad, edges faintly fimbriate and brownish.

Stipe 6-9 cm x 8-15 mm, whitish, fibrillose, hollow, tapering upward or equal, base at times clavate.

Spores in deposit: blackish.

26048 - *Psathyrella*

delincata ?

29291

PSATHYRELLA

On log, Horse Cove, Highlands, North Carolina, August 10, 1966

Pileus white, center yellowish, fibrillose, micaceous, margin striate to disc.

Lamellae and stipe white.

30214

PSATHYRELLA

In woods, Sharp's, Tobler Road, Knox County, May 19, 1968.

Pileus hygrophaneous, whitish or pale buff when dry,
dark when wet, atomate, minutely striatulate when wet.

Stipe white, fragile.

35204

PSATHYRELLA

On soil, Indian Creek, August 7, 1969.

Pileus pale pinkish buff (not matched), surface and margin densely covered with erect white spike-like scales. Gills more or less mouse colored. Stipe white, pruinose above, elsewhere glabrous.

35566

PSATHYRELLA

on humus, near Knoxville, A. J. Sharp, June 6, 1970

Pileus 15-25 mm broad, hygrophane, pale buff (dry), "dresden brown" (wet), glabrous, striatulate to disc. Context thin, pallid, brownish (wet), fragile; odor and taste none.

Lamellae narrowly adnexed, pallid then "dresden brown," close, ventricose, lamellulae numerous, thin.

Stipe 27-35 mm x 1.5-2.5 mm, white, shining, hollow. Veil white, silky, sparse, ephemeral.

37502

PSATHYRELLA

Frozen Head State Park, Wartburg on rotting twig, Aug. 31, 1972

Pileus hygrophanous, disc "light ochraceous buff," elsewhere "pale ochraceous buff," dingy brown when wet, radiately rugulose, atomate, appendiculate (white veil-remnants). Odor and taste mild.

Lamellae adnate-seceding, close, medium broad, "brownish drab," edges whitish.

Stipe white, shining, glabrous, fragile.

on lawn, Tobler Rd., Knox Co., Tennessee, leg. A. J. Sharp
June 6, 1976

Pileus 1.5-3 cm broad, hemispheric-convex, often umbonate, not expanding fully, "ochraceous tawny", with abundant blackish hairs which often form fibrillose scales, dry, margin even. Context pallid brown, thin; odor and taste mild.

Lamellae narrowly adnate, brown (young ones not seen), subdistant to rather close, medium broad.

Stipe 3-6 cm long, 2-4(5) mm thick, pallid, ~~annul~~ equal, dry, fibrillose-striate. Veil webby, white, fugacious, not forming an annulus.

Spores in deposit "blue violet black," 8-10 x 5-6 μ , rough to slightly so or nearly smooth, sublimoniform, ~~with~~ with a "nose", pore present. Pleurocystidia 47-58 x 8-10 μ , sub-cylindric to subventricose, apex/subcapitate, scattered but often in fascicles of 2 to 3; cheilocystidia 40-58 x 7-10 μ , similar to pl. but usually more slender, in tufts. Gill trama of subparallel, broad hyphae. Pileus cuticle a cell zone, of 2-3 cells deep, cells irregular in shape and rather large. Cuticular hairs each a strand of pale brownish hyphae, 5-10 μ broad. Caulocystidia in numerous tufts, 62-88 x 8-12 μ , similar in shape to ~~laminar~~ lamellar cystidia.

Near *Ps. echinocephus* (Atk.) Smith, in which the pileus is larger, stipe larger, odor and taste disagreeable, larger pleurocystidia, pileus cuticle several cells deep, spores just slightly broader.